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Railway Age

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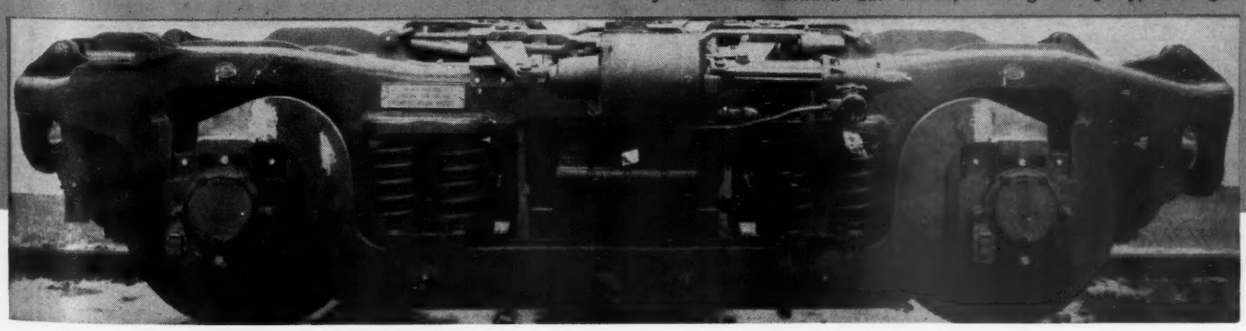
There's more than meets the eye in *Passenger Comfort*

Illustration courtesy Pullman-Standard Car Manufacturing Company, Chicago.



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RAILWAY ROLLER BEARINGS

UNIT Newsletter

UNIT TRUCK CORPORATION
140 Cedar Street New York

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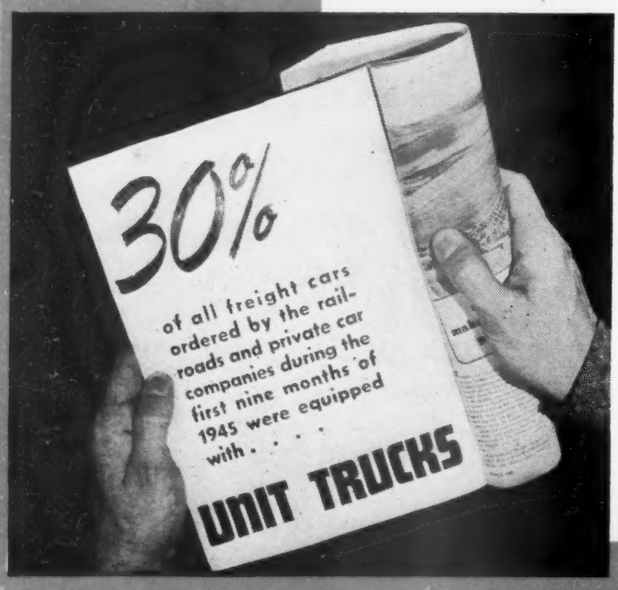
30%
of all freight cars ordered by the railroads and private car companies during the first nine months of 1945 were equipped with . . .
UNIT TRUCKS

AND here is the startling news flash that hit the industry with atomic force — almost 1 out of every 3 freight cars ordered during the first 9 months of 1945 specified UNIT, The Standard Brake Beam For The Freight Car of The Future.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway Age-Gazette. Name registered in U. S. Patent Office.

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In This Issue

PAGE

Baltimore & Ohio Installs Yard Radio **356**

Very high frequency amplitude modulation installation facilitates hump-yard operations formerly hampered by heavy fog obscuring hump signals and hand signals.

Rock Island Opens New Laboratories **359**

Specially designed building and many new research and testing facilities are devoted to scientific controls for selecting and purchasing materials and supplies.

Small Locomotive Scales Have Advantages **366**

The Southern constructs three units for checking weight distribution of motive power, to obtain better operation with fewer mechanical repairs and less damage to track.

EDITORIALS

Violence on the T., P. & W. 351
C. T. C. or Automatic Block? 352
Railroads and Army Have Similar Problems 352
More Attractive Shop Facilities 353

GENERAL ARTICLES

Great Northern General Service Gondola 354
Baltimore & Ohio Installs Yard Radio 356
Rock Island Opens New Laboratories 359
Small Locomotive Scales Have Advantages, by J. N. Todd 366
Fitzgerald Hall Dies 369

NEW BOOK **369**

GENERAL NEWS **371**

WITH THE GOVERNMENT AGENCIES **376**

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service.

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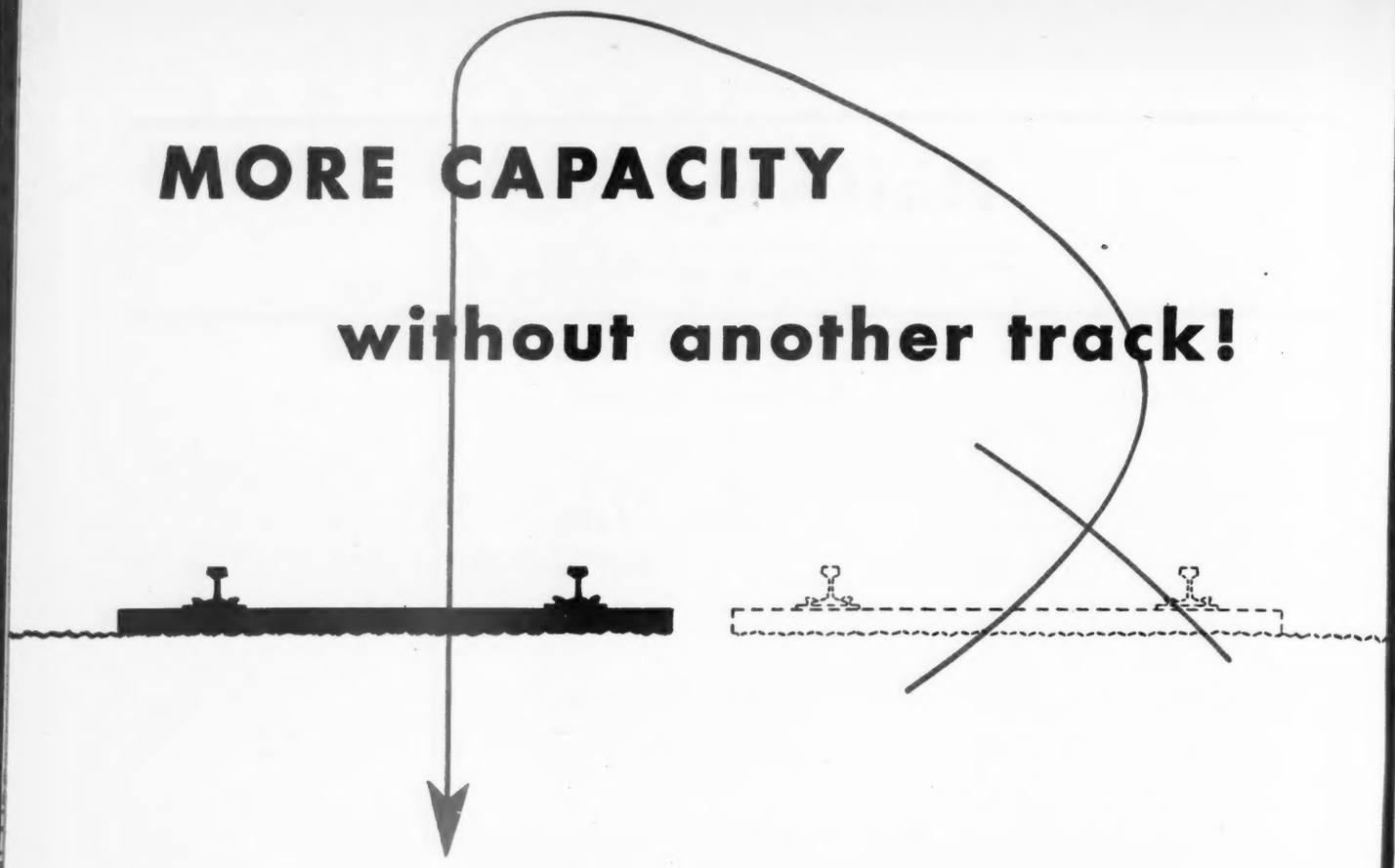
MORE CAPACITY

without another track!



DURING the past five years, American railroads have been faced with the problem of increasing their track capacity—but they have not had time, materials or manpower to lay additional track.

They solved the problem, and the major factor in the solution was Centralized Traffic Control.

In dozens of situations, "Union" C.T.C. has reduced delays and expedited train movements to such an extent that track capacity is 50% to 75% greater than under the time-table and train-order methods of operation. Time, manpower and strategic materials were saved and *in every case*, capital investment and operating costs were lower than if additional trackage had been built.

Railroads were not guessing when they turned to "Union" C.T.C. for this wartime task. As early as 1934 seven railroads had reported to the Signal Section of the A.A.R. that Centralized Traffic Control installations had made it possible to postpone construction of extra track. When the war broke out, it was still postponed, and a check-up in 1945, ten years after the original survey, showed that not one of the seven had yet found it necessary to undertake the track construction postponed by the installation of Centralized Traffic Control.

Today, railroads are studying the possibility of using the increased track capacity made possible by "Union" C.T.C. to enable them to meet post-war competition.

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RAILWAY AGE

Violence on the T., P. & W.

The courts will determine the immediate responsibility for the killing of two men and the shooting of others last week by guards employed by the Toledo, Peoria & Western. But, whatever may be the decision of the courts in this case, there can be no reasonable question regarding the primary responsibility for recent widespread lawlessness and violence in strikes. That primary responsibility rests on the leaders of labor unions, and on government officials, federal, state and local.

It is always and everywhere a violation of law for private citizens, whether as individuals, groups or organizations, and excepting in self-defense, to resort to intimidation or violence. Nevertheless, labor unions throughout the country have been doing picketing that has included intimidation and violence, and our governments have been allowing and encouraging them to do such picketing. When, as has occurred in numerous places, officials of companies and other persons desiring to work are prevented by picket lines from entering offices and plants, or required to get "passes" from unions in order to enter them, the evidence of intimidation by strikers and of failure of government to enforce the laws is conclusive. In addition, numerous acts of actual violence by pickets have been reported by reliable news agencies. Members of labor unions have been allowed almost everywhere to act as if the laws prohibiting intimidation and violence do not apply to them when they are on strike. Such craven failure of government officials to keep the oaths they have taken to enforce the law constitutes perjury by these officials. When strikers are thus allowed to use intimidation and violence, it is inevitable that, sooner or later, intimidation and violence will be used against them.

The management of the Toledo, Peoria & Western tried to operate a train, as it had a perfect legal right to do, strike or no strike. It had appealed for police protection, which it was not given, although numerous acts of violence to prevent the railway's operation had previously been committed by the strikers. Whether, in the absence of the police protection it should have been given, the railway acted lawfully in putting armed guards on its train, and these guards acted lawfully in self-defense, is for the courts to decide. At any rate, all reports indicate that the train was paced on the highway by a party of strikers in automobiles; that when it stopped the strikers advanced upon it in a threatening way; that the guards warned the strikers to halt; and that when the strikers continued to advance the guards opened fire.

The guards claim they fired in self-defense. At least one witness of the affray is reported to have said that two of the strikers carried "long guns." Every report of it plainly indicates that the strikers were trying by intimidation to prevent operation of this particular train and of the railway as a whole.

The men who did the shooting will be tried, and perhaps punished. Perhaps they should be punished. But what should be done with the labor leaders and strikers who started and for months continued intimidation and violence on the T., P. & W., and who were continuing them right on up to the moment when the shooting occurred? What should be done with the officials of government who allowed the strikers to engage in intimidation and violence for months, including the intimidation and violence in which they were engaged when the shooting occurred?

The *Railway Age* repeats what it said in an editorial in its issue of January 26: "The principal requisite of peaceful settlement of

labor disputes under existing laws is strict observance and enforcement of those laws by the federal, state and local government officials who have solemnly sworn, on taking office, that they will observe and enforce the laws."

C.T.C. or Automatic Block?

New high-speed passenger trains and faster freight trains are being planned for many long-distance routes where automatic block is not provided, or where the existing automatic block is obsolete. An important question, applying to non-signaled territory, is whether to install ordinary automatic block or to provide centralized traffic control.

In territory now signaled, the question is whether to modernize the automatic block system as such, or to change over to centralized traffic control. The logical answer in both instances appears to be to install centralized traffic control, because such a system will be the means for shortening schedules, as well as of keeping trains on time; and this applies not only to passenger trains, but also, and usually more importantly, to freight trains.

Roads which are planning to install new automatic block may contend that their principal objective is to improve safety of train operation, and that the centralized traffic control not only costs too much but the estimated savings in train time are not accepted as fact by their dispatchers and other operating officers.

Centralized traffic control is a system which can be planned according to needs based on the number of trains, character of traffic, number of sidings, grades and train speeds. Some roads, such as the Milwaukee and the Wabash, have gone at this matter in a hard-headed manner to eliminate sidings that will not be needed with C.T.C., and to reduce the number of signals to conform to the traffic to be handled. The adoption of modern coded track circuits to obviate line-wire signal circuits, and the use of carrier current to place the control in the dispatcher's office, are important items that make it possible to install C.T.C., where less perseverance and ingenuity might have caused the choice to fall on automatic block only.

Dispatchers and other operating officers who doubt the savings in train time to be accomplished by C.T.C. should make personal studies of existing installations. Accurate forecasts can be made by preparing time-distance charts of train operations. The fact is that these forecasts are conservative; trains usually make better time after the C.T.C. is in service than was anticipated. For example, on one road the passenger trains saved several minutes because, previously, enginemen had reduced speed when approaching stations so that they could see the train order signals, whereas, with no such signals included in the C.T.C., trains ran through at regular main-line speed.

The conclusion, therefore, is that in any territory where the volume of traffic justifies complete track-circuit signal protection, the provision of C.T.C. controls to authorize train movements by signal indication, rather than by train orders, can rarely if ever fail to be fully justified.

Railroads and Army Have Similar Problems

It is not only conceivable but even probable that a railroad could be operated to a standard approaching perfection, as the art is now known, and still, before long, run into serious trouble from technological and economic changes which, being beyond the range of immediate observation, it had neglected to notice and take into account. It is certainly true that an army can master to perfection the weapons and the strategy used in the last war in which it has engaged, and still be completely unprepared with the new strategy and the new weapons which it will have to use in its next conflict.

The United States Army has long recognized this situation and, to meet it, has for many years operated "staff colleges" for regular officers—an educational system which, heretofore, has had at its top the "War College" at Washington, which has included among its students the military leaders of highest rank. Studies at the War College have enabled the heads of the military organization, not only to keep closely abreast of improvements in the technique of warfare, but have been especially helpful in instructing top personnel in one branch of the service in the operations of branches other than their own, giving them the knowledge without which they would find it difficult and perhaps impossible to weld the varied specialized services into an effective unit for combat.

The railroads have had concrete experience of the effectiveness of the War College idea, namely, in the intelligent cooperation they received from the armed services in the recent war—an achievement for which much if not most of the credit must go to the lectures on wartime transportation which were given throughout the 'Twenties and early 'Thirties at the War College by the late M. W. Gormley of the A. A. R. During this period, at some time or other, Mr. Gormley's informative exposition had its impact on practically every one of the highest officers in the armed services.

Without such an institution as the War College there would have been practically no means of imparting to military leaders this vital instruction in transportation—and, if an understanding of the basic principles of effective domestic transportation in war-time had not been as widespread as it was at the highest official levels of the military services, very little imagination is required to picture what chaos the war-time transportation situation would have been.

The War College idea has, in fact, proved its worth so thoroughly to national defense authorities that the institution is now to be reorganized to embrace a still wider range of knowledge and inquiry. As reported in the New York Times, the reorganized college will afford educational and research facilities, not only for high-ranking Army and Navy officers, but for leaders in the State Department as well. All students will be "key men"—Army colonels and Navy captains of 20 years' service and State Department officials of parallel grade. The purpose of the program is "to promote close integration between the highest levels of the armed services and the State Department."

It is revealed further that "among the subjects to be

studied will be the atomic bomb and other new weapons and their effect on the trend of warfare." Foreign policies of the United States and other major powers will be analyzed, and the curriculum will have the advantage of information secured through the operation of the recently established Central Intelligence Agency—so, it may be assumed, the new college will not be governed by guess-work as to what our potential enemies are up to, but by factual knowledge of their plans and machinations. The program of the school is definitely aimed at "orienting officers into the future," and not at making them "experts in past wars."

The analogy between the situation of the Army and that of the railroads has been mentioned before in these pages, and is sufficiently obvious to make extended exposition unnecessary. Both the Army and the railroads make a *specialized* use of almost every industrial process and of every branch of scientific knowledge. In a time of rapid scientific and technological progress, keeping up with the developments in the branches of industry and science which might have a military or a railroad application is such a large assignment that either the military or the railroad organization which expects to keep abreast of developments applicable to its work will probably be disappointed if it entrust such assignments haphazardly to officers whose time is fully occupied with day-to-day operating responsibilities.

Both the Army and the railroads are beset, likewise, by resourceful opponents, and either organization is poorly equipped to face the future without accurate and comprehensive information as to what its opponents' plans and accomplishments are. Again, both the Army and the railroads have frequently to face problems which are entirely novel, requiring a background of information obtainable only by specific investigation and study and which cannot be acquired merely by practical day-to-day experience, however skillful or successful, in running either an Army or a railroad.

By its staff colleges, and especially by its newly-announced "top level" strategic college—which, by the way, contemplates ten months of full-time work from its students—the Army appears well on the way toward a complete fulfillment of the demands placed upon it by its present-day circumstances. It can scarcely be said that, as yet, the railroads have been as thoroughgoing as the Army in recognizing fully just how big their problem is and in the adoption of means adequate to the need. The recently-intensified activities of individual railroads in what is generally known as "research" will, of course, meet the needs of the situation in part. The A. A. R.'s Committee for the Study of Transportation *could* adequately round out a top-level educational and "intelligence" service for the industry as a whole, if the Committee were given permanent status and not allowed to expire when its initial assignment is completed.

Indeed, if the Railroad Committee for the Study of Transportation were made permanent and its membership were rotated among railroad executives, department heads, and some of the more promising subordinate officers, it would, in the wide scope of its inquiry, provide a rather close parallel to the new educational institution the armed services are setting up. The parallel would be even closer if the Railroad Committee were provided with a small permanent staff and if members of the Committee were largely relieved from other duties while engaged in work for the Committee.

More Attractive Shop Facilities

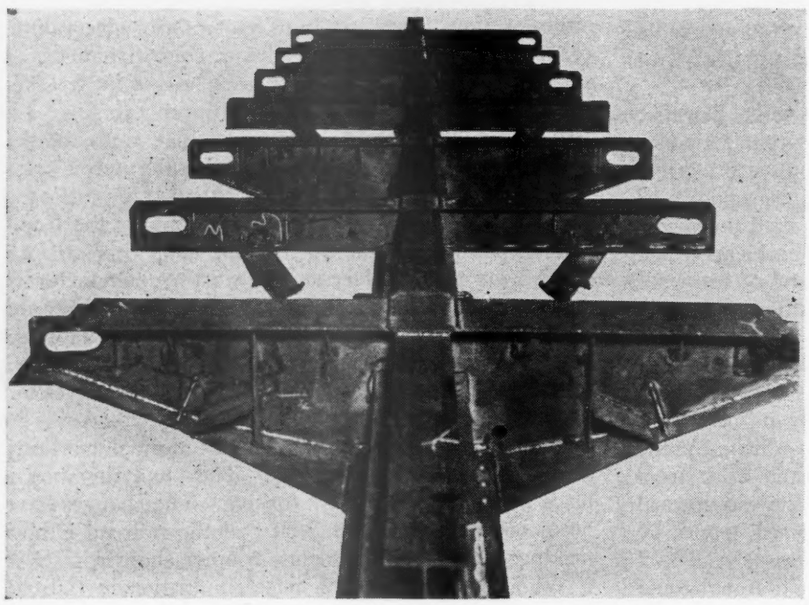
Cleanliness, good illumination, pleasing color schemes, and the elimination of noise are some of the characteristics of passenger cars which are considered necessary to attract customers to the railroads and to retain their patronage. Recent experiments with color for the interior of railroad buildings show that these same attributes have possibilities for making railroad shops more productive and more attractive. "Good housekeeping" has for years been accepted as necessary for the safe and efficient operation of railroad shops, and the advantages of adequate illumination are well known and have been demonstrated in numerous applications to railroad operations. The value of pleasing color schemes for railroad shops is not so well known but increased recognition is now being given to the interior decoration.

A discussion of the principles of color dynamics, as applied to the laboratories of the Chesapeake & Ohio at Huntington, W. Va., appeared in the January 12, 1946, issue of *Railway Age*. Another railroad, the Baltimore & Ohio, has experimented with interior color schemes in a facility common to all railroads—the enginehouse machine shop. In modernizing the Cumberland, Md., enginehouse machine shop this railroad studied the results of research by paint manufacturers and then selected specially mixed paints for the interior walls, the machine tools, traffic lanes and motorized trucks—with the end in view of relieving eye strain and fatigue. These improvements have had an interesting psychological effect on employees. They take pride in maintaining a clean shop and in the neat and orderly arrangement of machine tools. They find the shop a place in which they enjoy working. The changes have been found to be so beneficial that the railroad is now making similar improvements in other shops.

While no real study of noise elimination in railroad shops has been reported, the trend toward welding in car and locomotive repairs and the use of new shop methods are steadily decreasing the volume of unpleasant shop sounds. The greatest offender in this respect is the riveting hammer and close seconds are flue tumblers in the locomotive shops and the blast of oil-fired furnaces used in heating, forging, and annealing operations in both car and locomotive shops. Welding has caused a noticeable reduction in the noise created by riveting hammers; flue tumblers are being replaced by the less noisy sand-blast flue-cleaning machines; and, in comparison with the older types of furnaces, those more recently installed seem practically silent in operation.

With changes such as these being made currently it is not difficult to imagine railroad shops of the future which will be as attractive and appealing to employees as the plants of any industry can be. Furthermore, the gains made in efficiency and production will afford big offsets to the cost of the improvement.

Interior of all-welded gondola with the drop doors closed



Welded alloy-steel underframe for the 50-ton gondola

Great Northern Ge

THE Great Northern has recently received 500 50-ton all-welded low-alloy-steel drop-bottom gondolas, which will be used in general service for hauling such commodities as coal, sugar beets, pulp wood, lumber, sand, gravel —and grain in emergency. The light weight of these cars, built by the Pressed Steel Car Company and equipped with A. S. F. Ride-Control trucks and one-wear wrought steel wheels, averages 42,000 lb. Volume capacity is provided to carry a maximum load of 127,000 lb. of coal, and strength enough for any lading permitted in this type of car in interchange service.

The actual average weight of 42,000 lb. may be compared with 48,500 lb. for a reasonably comparable series of riveted open-hearth-steel gondolas, built by Pressed Steel for the Great Northern in 1937. The indicated weight saving of 6,500 lb. in favor of the new cars has been achieved in spite of heavier door shafts and greater strength at numerous points in the car construction, as well as the use of swivel-shank couplers, cushion coupler carriers and some other specialties not included in the 1937-built cars. About 1,426 lb. of the 6,500-lb. weight saving is represented by the difference in weight of the Ride-Control trucks and the conventional spring-

One of the Great Northern general service gondolas built by Pressed Steel

Five hundred 50-ton drop-bottom cars designed for all-welded low-alloy steel construction—Light weight, 42,000 lb.

General Service Gondola

plank trucks equipped with chilled-tread wheels, as used on the earlier cars.

The car structure, except for minor details, is formed of low-alloy high-tensile steel and is practically all-welded. The safety appliances are required by law to be secured by rivets or bolts and, because the ladders apply at the seam joining the ends to the sides, rivets are used throughout for this joint which takes care of the safety appliances and at the same time facilitates erection in the car building plant.

Car Has High Safety Factor

The car has been designed with a high factor of safety to assure long life and minimum maintenance. Five makes of high-tensile steel are utilized, all having a minimum yield strength of approximately 50,000 lb. per sq. in. Before approving the use of these steels and the electrodes proposed, the Pressed Steel Car Company made weld tests on all combinations and, after completing the car, subjected it to impact tests up to and including 16 miles an hour to further check the welding.

To insure practically complete discharge of lading through the doors, a modified form of type A center sill construction was used. This consists of two A. A. R. Z-section center sills joined together by welding and on top of this a 10-in. H-section is welded. These welds were all automatic or machine welds, made by the Unionmelt process.

Unionmelt welds were also utilized for joining side sheets to top and bottom members and stakes to the side sheets, and combined bolster center fillers and rear draft lugs to center sills. Other welds were applied by hand. Electric arc welding was used throughout.

A flat-top reinforced door of welded construction is used to facilitate unloading with clam-shell buckets and to minimize damage in such unloading. This also assures a smooth surface for the flow of lading in dumping. Also to minimize damage by clam-shell buckets, heavier cross-member cover plates are used than would be necessary to carry the load alone. These features, along with door shafts 2½ in. in diameter instead of 2¼ in., previously standard for cars of this capacity, are all utilized with the view to assuring increased life and minimizing maintenance.

Materials and Specialties

Low-alloy high-tensile alloy steels, used exclusively for various parts of these car bodies are as follows: Center sill Z-sections on 300 cars and top H-sections on 500 cars are made of Mayari steel, supplied by the Bethlehem Steel Company; center-sill Z-sections on 200 cars, and 500 car sets of bolster top cover plates, jacking plates, corner caps, side sheets and other parts are made of U. S. S. Cor-Ten steel, supplied by the Carnegie - Illinois Steel Corporation; cross-bearer web plates, bolster bottom plates, cross-tie bottom plates and other parts on 500 cars are made of Yoloy steel, supplied by the Youngstown Sheet & Tube Co.; door stiffener angles, side stakes, sub-side sills, bolster web plates, cross-bearer bottom plates and other parts are made of NAX No. 9112 steel, supplied by the Great Lakes Steel Corporation; floor sheets for 500 cars are made of Cor-Ten steel, supplied by the Republic Steel Corporation.

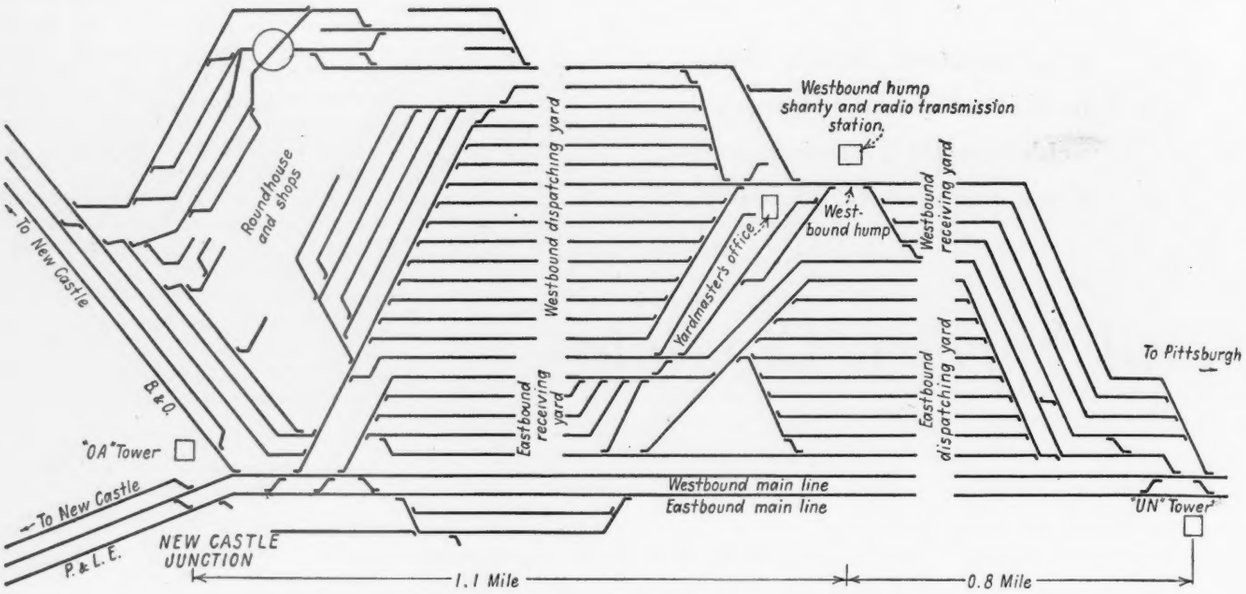
In addition to other specialties used on the cars, as shown in the table, ends are car builder's own corrugated design made of ¼-in. low-alloy steel plate and the creeping shaft arrangement used in operating the drop doors also is of Pressed Steel Car Company's design. When closed, the 16 drop doors form an unusually flat, smooth and tight floor for the car. Another interesting feature of the drop doors is the provision of slightly raised ribs around and just inside of the door edges which tend to prevent clam-shell-bucket teeth from hooking into the doors and damaging them while attempts are being made to fill and lift the bucket.

General Dimensions and Weights of 50-Ton Gondolas

Length inside of body, ft.-in.	40—6
Width inside of body, ft.-in.	9—6⅝
Depth of car body inside, ft.-in.	5—4⁹/₁₆
Width over side stakes, ft.-in.	10—4½
Length over striking plates, ft.-in.	41—10
Distance from center to center of trucks, ft.-in.	29—11½
Height from rail to bearing surface of center plate, ft.-in.	2—1¾
Height from rail to center of coupler, ft.-in.	2—10½
Height from rail to top of floor, ft.-in.	4—2½
Height from rail to top of body, ft.-in.	9—6³¹/₃₂
Length of door opening, ft.-in.	4—3¼
Center to center of side bearings, ft.-in.	4—2
Cubic contents top of sides, cu. ft.	2,053
Cubic contents with 10-in. heap, cu. ft.	2,410
Nominal capacity, lb.	100,000
Light weight, lb.	42,000
Load limit, lb.	127,000

Partial List of Equipment Used on 500 New G. N. 50-Ton Gondolas

Car builder	Pressed Steel Car Company, Pittsburgh, Pa.
Draft gears, Type M-25, 200 cars	Cardwell Westinghouse Company, Chicago
Type A-22-XB, 300 cars	W. H. Miner, Inc., Chicago
Couplers, swivel-butt	Buckeye Steel Castings Company, Columbus, Ohio
Coupler yokes, 200 cars	Symington-Gould Corporation, Rochester, N. J.
200 cars	National Malleable & Steel Castings Company, Cleveland, Ohio
100 cars	Buckeye Steel Castings Company, Columbus, Ohio
Draft-gear carriers; dust-guard plug retainers	Central Railway Supply Company, Chicago
Draft-gear key retainers; branch-pipe tee anchors	Illinois Railway Equipment Company, Chicago
Coupler centering device; uncoupling arrangement	Standard Railway Equipment Manufacturing Company, Hammond, Ind.
Side bearings, Barber	Standard Car Truck Company, Chicago
Air brakes, Type AB	New York Air Brake Company, Watertown, N. Y.
Hand brakes, 200 cars	Ajax Hand Brake Company, Chicago
300 cars	Universal Railway Devices Company, Chicago
Brake steps, 250 cars	Apex Railway Products Company, Chicago
250 cars	United States Gypsum Company, Chicago
Defect card holder	Apex Railway Products Company, Chicago
Trucks, A-3 Ride-Control	American Steel Foundries, Chicago
Dust guards	Ajax-Consolidated Company, Chicago
Dust-guard plug retainer	Central Railway Supply Company, Chicago
Wheels, one-wear steel—250 cars	Bethlehem Steel Company, Bethlehem, Pa.
250 cars	Carnegie-Illinois Steel Corporation, Chicago
Axles—200 cars	Bethlehem Steel Company, Bethlehem, Pa.
300 cars	Carnegie-Illinois Steel Corporation, Chicago
Journal box lids	Asco Box Lid Company, Chicago
Journal bearings—125 cars	National Bearing Metals Corporation, St. Louis, Mo.
375 cars	Magnus Metal Corporation, Chicago
Brake beams, A.A.R. No. 15	American Steel Foundries, Chicago
Brake shoes and keys	American Brake Shoe Company, New York
Brake-beam levers and hangers; bottom brake rods	Pittsburgh Forgings Company, Coraopolis, Pa.
Brake hanger retainers	Illinois Railway Equipment Company, Chicago
Brake beam safety supports; bottom rod supports	Chicago Railway Equipment Company, Chicago
Pipe clamps; angle-cock holders; slack adjusters	Universal Railway Devices Company, Chicago
Tight-Lock cotters	Gustin-Bacon Manufacturing Company, Chicago
Spring packing retainers	Spring Packing Corporation, Chicago



Schematic diagram of the yards at New Castle Junction, Pa.

Baltimore & Ohio Installs Yard Radio

Very high frequency amplitude modulation installation facilitates hump-yard operations formerly hampered by heavy fog obscuring hump signals and hand signals

AT New Castle Junction, Pa., about one mile east of New Castle, the Baltimore & Ohio has made a permanent installation of VHF (very high frequency) AM (amplitude modulation) radio for two-way conversation between the westbound hump shanty and locomotives operating on the westbound hump and in the westbound receiving and dispatching yards. The frequency allotted by the Federal Communications Commission for this installation is 159.27 megacycles.

The diagram shows the westbound hump and the westbound receiving and dispatching yards, located north of the eastbound receiving and dispatching yards and the main line. Entrance and exit to the yards from the main line are at UN tower at the east end, and OA tower at the west end. The UN tower is located 0.8 mile east of the westbound hump shanty, while OA tower is located 1.1 miles west of the shanty. From UN tower eastward, the main line extends to Pittsburgh, Buffalo, Rochester, Washington, Baltimore and Philadelphia. At OA tower there is a junction with the Pittsburgh & Lake Erie extending to New Castle. The B. & O. main line extends west to New Castle, Youngstown, Akron, Cleveland, Toledo and Chicago.

The westbound yards and hump are the more important. Westbound freight trains are brought into the westbound receiving yard at UN tower, and are broken up, humped and classified for further movements to points west. Eastbound trains are handled in a similar manner, but not on as large a scale, and radio communication is not used in the eastbound yards.

Reason for Radio

Yard movements over the westbound hump were formerly governed by color-light hump signals and hand signals. Heavy fog, which prevails in the area about 200 days annually, hampered operations. At times it was almost impossible for enginemen to see close-range hand signals, and color-light hump signals were practically obscured.

Consequently, the decision was made to try radio communication. A transmitting station was set up in the westbound hump shanty, and one steam locomotive was equipped with radio. When the experiments proved successful, two more steam locomotives were equipped, and the decision was made to make the installation permanent. The present transmitting station in the hump shanty is, however, expected to be moved in the near future to the yardmaster's office nearby—shown on the diagram—with an antenna on the roof, and a remote control station established in the westbound hump shanty. This will facilitate further both radio and yard operations.

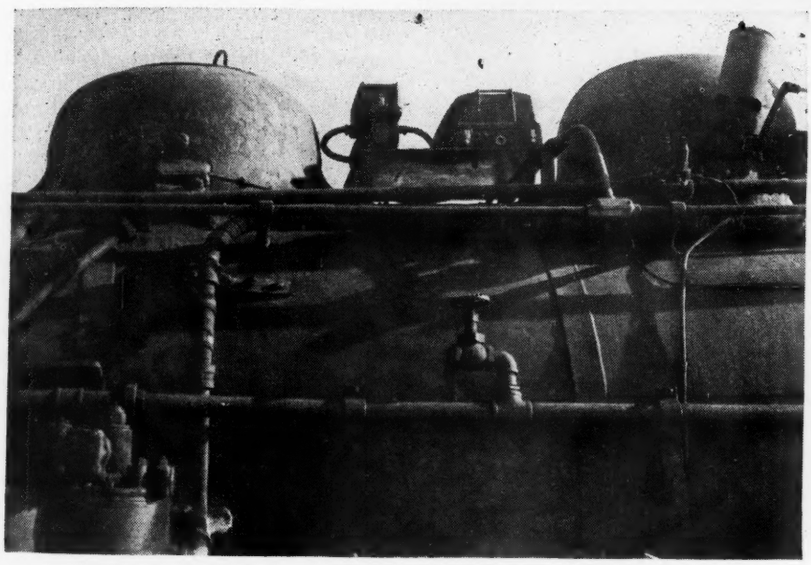
Advantages of Installation

With radio facilities in service, humping and classification orders, as well as emergency instructions, are being given directly to enginemen without interference from fog, snow, rain, smoke or any other conditions which might obscure signals and hamper operations. Thus, better speed of operation is being obtained, in that verbal instructions can be made more specific than hump and hand signals and, at the same time, can be checked by repetition by the enginemen. In yard transfer operations, locomotives are dispatched while on the move without losing time for calling in by telephone. Additional pick-ups in the yard are arranged without delay and, in the case of locomotive breakdowns, helper

locomotives are requested at once and are immediately dispatched to the area involved. In one instance a main line passenger train broke down about five miles from the hump shanty. When word was received of the breakdown, one of the radio-equipped yard locomotives was immediately dispatched to the scene, to tow the train. Radio communication was maintained during the entire emergency, and facilitated the operation considerably, thus minimizing delay to the passenger train.

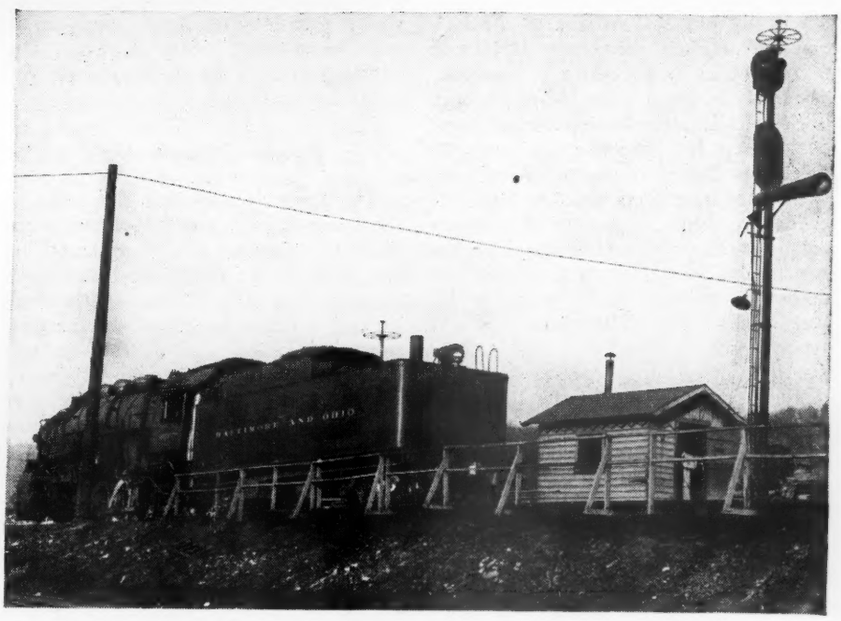
The call letters of the westbound hump shanty are W10XXE. Each mobile locomotive station, likewise, is provided with call letters, namely, locomotive No. 634, W10XXH; locomotive No. 713, W10XXC; and locomotive No. 951, W10XXF. The operation of all radio facilities in the yards is governed by the operating rules of the Federal Communications Commission. The radio equipment in the westbound hump shanty includes a communication unit, control unit, microphone, loudspeaker, power supply unit and an antenna. A typical mobile installation on a locomotive consists of identical equipment, with the exception of the power supply unit.

Above—View of westbound dispatching yard at New Castle Junction, Pa., looking west from yardmaster's office



Left—The communication and power supply units on locomotives Nos. 634 and 713 are mounted on a steel plate between the sand and steam domes to decrease shock on the equipment

Below—Westbound hump, showing locomotive No. 951 equipped with radio. Note antennas mounted on locomotive tender and at pinnacle of color-light hump signal. The westbound hump shanty is at the right



Low Power Unit

The communication unit in the shanty and on the locomotives includes a radio transmitter and receiver. Transmitter power of this unit is rated at 10 watts. The transmitter power in the case of an AM (amplitude modulation) unit such as this is slightly less than in a FM (frequency modulation) unit. Power output in the unit in excess of 10 watts was considered unnecessary at the 159,-27-mc. frequency. The receiver characteristics do much more in determining the performance of the system than

View showing engineman using microphone while conductor observes radio operation. The speaker is shown directly above the engineman's head, while the control unit is at the left

transmitter power. In other words, this unit produces the same quality signal with less voltage input as the earlier designed units, widely used in experiments heretofore, and accomplished with a higher voltage input. It would be costly and difficult to get the same gain by increasing the transmitter power output.

Although the transmitter-receiver unit is the AM type, the construction is practically identical to that of the FM type. Thus, field conversion is easy if a changeover is necessary. The unit, designed for the 158 to 162-mc. range, is electrically interchangeable and identical, except for the frequency range, to the 186 to 216-mc. frequency band unit. Provisions have been made for dual frequency operation, by means of a switch on the control unit which would permit selection of either frequency. These two output frequencies could be up to 1.2 megacycles apart. The transmitter and receiver are combined on a single chassis, thus conserving space and weight of the equipment, simplifying the maintenance and spare parts problem, and saving power input. The equipment housing is water and air tight.

Control Unit and Microphone

The control units in the hump station and on the locomotives incorporate an on-and-off switch, a red pilot lamp to indicate when the equipment is in operation, and a volume control for adjusting the loudspeaker output. The microphone is the dynamic type. Voice directed at the microphone from one direction only is clearly transmitted, whereas undirected noises such as escaping steam, whistles, engine and other noises are eliminated. The microphone includes a push-button type switch which must be pressed before talking. The loudspeakers are the weatherproof type used on battleships.

Power Supply Unit

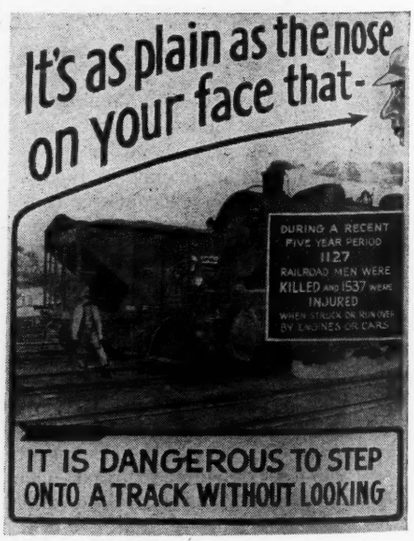
The power supply unit, for radio in the hump shanty, consists of two rectifiers, and operates on 110 volts, 60 cycles, a. c., from a commercial source. It supplies 325 volts, d. c., for the high voltage circuits in the communication unit, and 13 volts, d. c., for the low-voltage circuits. The power supply unit on the locomotives is a dynamotor, for operation on 32 volts, d. c., from the headlight steam turbo-generator. The first winding of the dynamotor supplies 13 volts, d. c., at 9 amp. for the low-voltage circuits in the communication unit. The second winding supplies 325 volts, d. c., at ¼ amp. for the high-voltage circuits.

The power drain for the two types of power supply units under different operating conditions is as follows: When a communication unit is standing by, the power drain on the rectifier-type power unit is 200 watts, and on the dynamotor-type power unit 320 watts. When receiving a signal, the drains on the respective units are 240 and 380 watts. When transmitting a signal, the drains are 280 and 425 watts, respectively. The current consumption of the communication unit, using a dynamotor-type power unit, is 10 amp. when transmitting, and 7.3 amp. when standing by. Using a rectifier-type power unit the current is 3.1 amp. when transmitting, and 2 amp. when standing by.

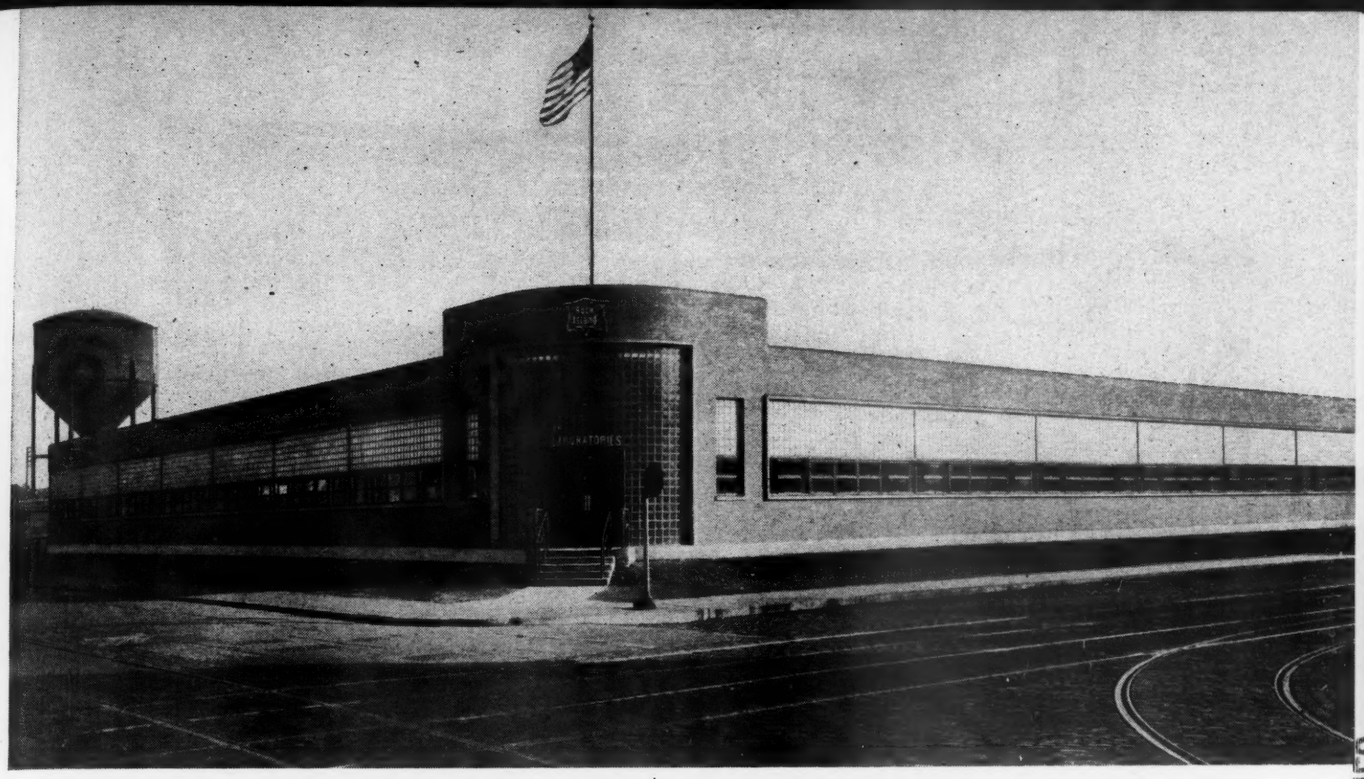
Mounting of Antennas

The antennas on the locomotives and at the hump shanty are identical, with the exception of their mounting. The antenna is pre-tuned and requires no field adjustment. It consists of a spoked device which looks like a wagon wheel.

The radio communication facilities at New Castle Junction were installed under the direction of A. S. Hunt, chief engineer, communications and signals, and under the supervision of L. J. O'Connell, assistant communications engineer. The installation of all radio equipment on the three locomotives was done under the supervision of Harry Rees, superintendent of motive power, Central region. The major items of radio communication equipment were furnished by the Bendix Radio Division of the Bendix Aviation Corporation.


It's as plain as the nose on your face that-
DURING A RECENT FIVE YEAR PERIOD
1127
RAILROAD MEN WERE KILLED AND 1537 WERE INJURED
WHEN STRUCK OR RUN OVER BY ENGINES OR CARS
IT IS DANGEROUS TO STEP ONTO A TRACK WITHOUT LOOKING

Poster No. 270, March installment of the "All the Year-Every Year Safety Program," now being distributed by the Committee on Education, Safety section, A. A. R.



New research laboratory recently completed by the Rock Island is fully equipped for testing the 70,000 items used in railway operation and maintenance

Rock Island Opens New Laboratories

Specially designed building and many new research and testing facilities are devoted to scientific controls for selecting and purchasing its materials and supplies

OUTSTANDING among the many developments of the Rock Island Lines' $1,700,000 improvement project at its 47th Street Chicago terminal is the modern testing and research laboratory building that was placed in service a short time ago. A one-story reinforced concrete structure, with exterior walls of red shale brick, glass blocks and continuous lines of horizontally-hinged windows, its 16,275 sq. ft. of floor area symbolize the added interest and attention that today's railways are devoting to scientific tests and research in conjunction with the selection, purchase and use of more than 70,000 items of materials and supplies regularly used for operating and maintenance purposes.

Features Step-up Efficiency

Most striking characteristics of the new building are its spaciousness and the care with which it has been designed to provide for all of the many phases of investigation, tests and research together with careful planning for the most efficient location of machinery, equipment and supplies throughout every individual laboratory room. From its imposing semi-circular glass block entrance to its wide Ro-way five-section back door, protected by a Kinnear rolling type steel grille, every foot of space and all of its equipment and apparatus have been carefully planned to provide for better testing and better research. The structure was limited to one floor primarily to reduce building costs, but also because of convenience and to avoid handling supplies and items under test from one floor to another. Special care has been devoted to selecting convenient locations for telephones throughout the building which, together with an inter-communication system, help promote the productive efficiency of the entire staff.

The interior walls and partitions are finished with buff-colored vitrified tile without glaze and of a type that is easy to clean. In fact, prior to its selection the engineer of tests and his staff made comparative tests to determine the type of tile that finally was decided upon because of the ease with which grease, dirt and soot could be removed from its surface and because of its structural strength and light reflecting properties. Except for the physical testing laboratories, the ceilings throughout the building are 12 ft. high and the solid brick and tile walls extend to a height of 4 ft. to the window line. The Truscon window sashes are 3 ft. in height, horizontally-hinged and of copper-bearing steel; the framework for interior glass partitions and door frames is of the same grade of steel, "bonderized." All interior steel is painted with an attractive aluminum finish. Pencil and other marks may be easily removed from all of these surfaces. The furniture, including all desks, laboratory tables, bookcases, and cabinets, are of lead-coated, copper-bearing steel, bonderized and coated with zinc-chromate primer, two coats of aluminum lacquer and one coat of clear lacquer; all coats were baked.

Insulux glass blocks, a product of the Owens-Illinois Glass Co., comprising a 5-ft. section of the exterior walls, extend from the top of the windows to the ceiling. The blocks on the north side are

View of the physical testing laboratory showing machine tool section for making and preparation of test specimens for physical, chemical and etch tests—Note overhead two-ton traveling crane serving this section and also test machine section—Painting scheme of this whole room is in accordance with so-called color dynamic system—Room off this section devoted to sand blasting and macro etching

of the diffusion type and those on the other sides of the building are of the functional variety. With the exception of the machine shop and the physical testing laboratory, which are floored with creosoted wood blocks, the reinforced concrete floor is covered with Johns-Manville asphalt tiles; special oil-resistant J-M asphalt tiles were used in the lubricant testing laboratory. Ceilings of all offices and all laboratories, with the exception of the machine shop and physical testing laboratories, are covered with an acoustic and insulating finish of spray-acoustic type of asbestos fibre composition. This provides quiet working conditions, and also a pleasing and attractive appearance.

Fluorescent lights have been installed throughout all the building, and in the offices they comprise two 48-in., 40-watt tubes enclosed in Holophane, dust-proof, translucent fixtures; the lights in laboratory rooms and the physical testing laboratory have open-type fixtures. The lighting system has been designed to provide a minimum of 30 foot-candles of light on benches, desks or other working levels with the exception of the chief clerk's office, where the intensity is 50 foot-candles.

Glass and Color Dynamics

Another of the many innovations is the extensive use of glass in all the interior partitions. In most instances this comprises large panels of clear plate glass, which not only improve natural lighting throughout the entire structure, but also add an impression of spaciousness even to the smaller laboratory rooms. This treatment gives the effect of one large room and yet provides adequate segregation for different types of work. In locations where it was desired to obscure vision through partitions, a special fluted glass has been used. Toilet partitions are of green structural glass.

Particularly effective also is the use of the Pittsburgh Plate Glass Company's system of "color dynamics" applied to the machine shop and the physical testing laboratory. The pastel shade of green on the ceiling and the trim of a deeper tone have a restful effect upon the eyes. In painting the machines, all stationary parts are finished in focal green, moving parts focal buff, operating levers focal yellow, and starting switches focal orange, the whole painting scheme being conducive to cleanliness and safety.

The heating system is of forced hot-air type and steam is drawn from the Rock Island's 47th street terminal power house. The air is filtered by the Air-maze process, which is similar to that used in Rock Island coaches and cars, and the controls are by Minneapolis-Honeywell. In addition to the heating and air-filtering equipment, the service room houses a heater for providing all the circulating hot water that is required for many tests, vacuum pump, electrical transformers, motor generators, storage batteries, compressed air, and gas services.

The library affords further evidence of the care that has been exercised in design to help step up the efficiency of the laboratory staff. Conveniently located adjacent to the reception lobby, it houses many technical books, association reports, proceedings and manuals in bookcases, all readily accessible to members of the staff when they have occasion to use the library for reference, without disturbing the occupants of the various offices or laboratories.

As an aid in the development and testing of train communication equipment, a room 19 ft. by 20 ft. has been devoted to electronic tests and research. In addition to a completely equipped electronic car which covers the entire Rock Island System, three laboratory research technicians are employed also in connection with radio, telephone and other electronic apparatus; the department also repairs and services the railway's radio and communication equipment.

Laboratory equipment includes three vacuum tube voltmeters with ranges from 0.01 to 600 volts covering frequency ranges from D. C. to 1200 megacycles A. C.; three Hewlitt-Packard audioscillators covering ranges from 20 cycles to 200 kilocycles; and one complete Rock Island-built frequency meter

for calibrating transmitters against regulations of the Bureau of Standards in accordance with requirements of the Federal Communications Commission. This device assures the frequency accuracy to better than two parts in a million of Rock Island radio stations.

The testing department's well-equipped electrical laboratory evidences the expanding use of electrical apparatus and equipment on the railways and, in this instance, it also includes repair facilities for a large portion of the electrical testing instruments that are used on the road. Here tests are conducted on electrical devices, wet and dry-cell batteries of all kinds, and fluorescent lighting fixtures for both buildings and cars. There is also a laboratory for the testing of car insulation, boiler lagging and pipe insulation; and apparatus for checking thermostatic switches for Clarkson heating systems on Rocket cars. The calorimeter used for the insulation tests is of latest approved hot-plate type.

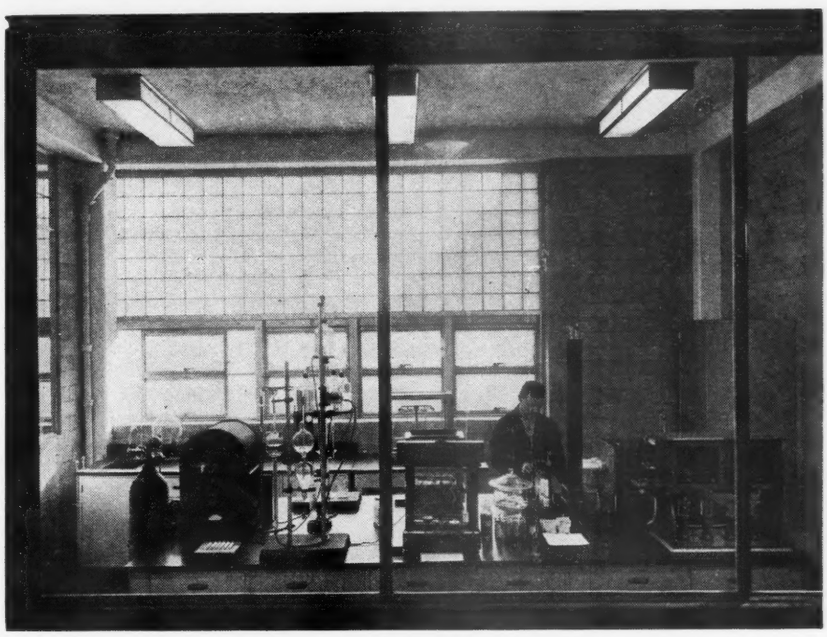
Because of the fact that the old laboratory contained only one photographic dark room that often retarded work because developing and printing could not be carried on simultaneously, thus introducing a serious bottleneck, the new building is provided with two adjacent dark rooms and each with two labyrinth type entrances or exits, thus obviating the necessity for having doors. When one room is in use for printing, developing may be carried on in the other without interfering with either process. Other interesting features in the dark rooms are the special Alberene stone developing tanks, equipped with General Electric thermostatic valves to control temperature of washing water, and the arrangement of the light switches. To prevent persons entering either room and turning on lights that might spoil photographic work in process, the room entrance switches are so arranged that when turned on only small amber or red lights will function and the white fluorescent lights can be turned on only by the individual fixture switch.

The machine shop and physical testing laboratory are devoted largely to testing all engineering materials such as steel, iron, brass, bronze, and concrete, including many of the items purchased for storehouse stocks, to determine their ability to withstand the rough and continuous usage encountered in railway service. A two-ton overhead crane permits unloading directly from trucks that can be driven into the shop itself, and for handling heavy specimens to and from the various machines. All the machinery for preparation of test specimens and testing is conveniently arranged and includes a shaper, drill press, lathe, milling machine, cut-off machine, masonry saw, floor and bench grinders, power saws, a fatigue testing machine, hardness testing machines, a 300,000-lb. capacity Riehle testing machine, a 10,000-lb. capacity testing machine, both with General Electric Thymotrol drive, and other devices.

Also within the province of the testing department is the operation of the rail test and dynamometer cars, the former of which was built by the Rock Island under license from the Association of American Railroads. Specimens of all rail failures are sent to the laboratory for final analyses and observation.

Another innovation is the large constant temperature room (walls and ceiling insulated with a 6-in. blanket of Armstrong Cork), which will be equipped with humidity control, heating and refrigerating facilities, whereby temperatures ranging from —25 deg. F to 125 deg F may be maintained over considerable periods in the course of observing the operative reaction of entire machinery units under ambient temperatures similar to those encountered in actual service. Lubricants also will be tested at various temperatures. Later it is planned to apply lead lining to this room for X-ray investigations.

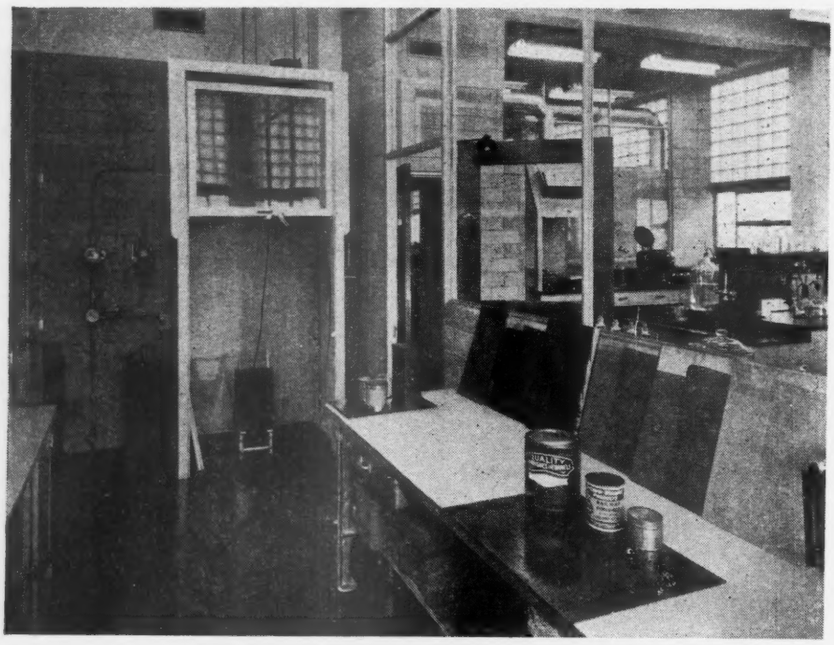
Typifying the individuality of design that has been exercised throughout the entire building is the macro-etch and sand blast room, with its compact arrangement of all facilities for cleaning, sand blasting and etching metallic test specimens. A large funnel-shaped hopper, covered with steel grating, is set



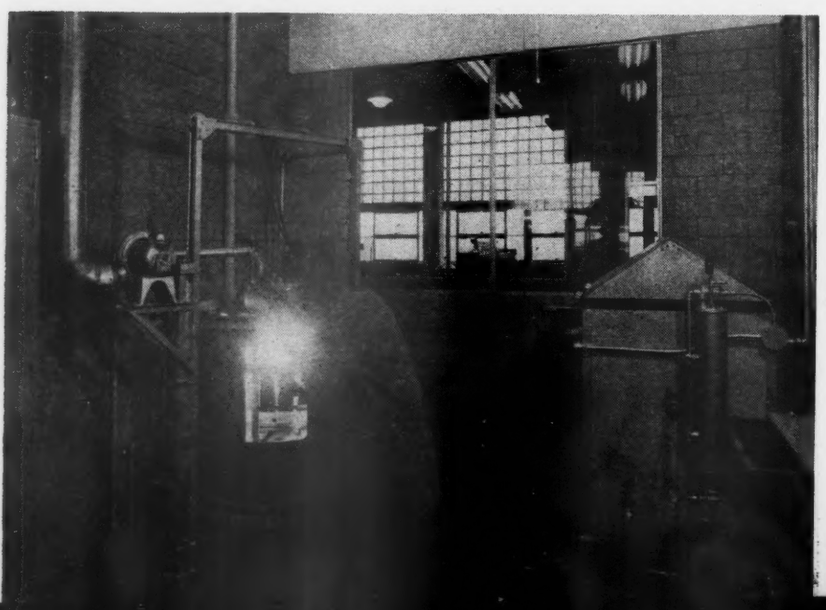
A clear view through a plate glass partition of one of the laboratories for metal analysis equipped with furnaces, absorption apparatus for rapid carbon and sulphur determinations, also equipment such as furnaces, barometer, balances, gas analysis analysers and electrolytic assembly for analysis of non-ferrous metals

A view of the physical testing laboratory showing the machines used for testing tensile strength, hardness, impact, fatigue, etc.

Metallographic laboratory, equipped with inverted type microscope, coarse grinder, polishing machine, mounting press, specimen storage cabinet and a portable table for macro photography



ABOVE—Laboratory for routine physical testing of protective coatings and preparation of specimens for exposure tests—Note spray booth—All fixtures in this room are of special explosion-proof and fire-proof types—BELOW—Laboratory for accelerated testing of protective coating and corrosion-resisting materials—Operator is inserting test panels in the accelerated weathering unit where they are exposed alternately to simulated sunshine and rain—At right is a salt spray testing unit



into the floor for collecting and reusing the cleaning sand as the specimens rest upon the grating. The entire room and its washing sinks and fixtures are of acid-proof construction; floor and walls are of acid-resisting tile; the concrete ceiling is coated with acid-resisting black paint and the mortar used to set the tiles also is acid-proof. An electric exhaust fan in the outer wall provides proper ventilation.

The rubber-testing laboratory is fully equipped to perform the necessary tests on air, signal and steam hose, gaskets, packing and various upholstery and textile materials used on the railroad. These tests include exposing the rubber goods to steam to determine digestion, and the effect of exposure to steam passage, also applying air-pressure-bursting tests on steam and air hose specimens.

The provision of a room for spectro-analysis, like other special laboratories, indicates the thorough initial planning that preceded construction. One of the many pieces of equipment designed to expedite testing is the Hoskins heavy-duty electric furnace, where specimens may be heated to temperatures as high as 2,500 deg. F., particularly specimens of steel for heat treatment characteristics. The metallographic room equipment consists of polishing machines, a floor type grinder, microscopes, and photographic apparatus.

Testing Protective Coatings

Quality and uniformity are of the utmost importance in protective coatings for railways, not only because of the harsh conditions of exposure to which these products are subjected in service, but also because application costs usually involve more than twice the cost of the product used, so that the completed job represents a relatively large outlay. Careful supervision of the quality of protective coatings has been maintained by the Rock Island for many years and the new accelerated test laboratory is fully equipped to put paints, varnishes, lacquers and other protective coatings through their paces in determining their relative values. A cylindrical actinic ray accelerated weathering machine, approximately four ft. in diameter, is equipped with ultraviolet arc lights to reproduce the effect of sunshine and also with water sprays to reproduce the effect of rain. Various arrangements to alter temperature control as desired also are provided. As the test panels are automatically rotated they are exposed, alternately, to simulated sunshine and rain. While comparisons are variable, depending on conditions, one hour's exposure in the weathering unit may approximate one day of normal outdoor exposure. The weathering cylinder is of copper, tin-lined, and is used for both paint and metallic coatings. A second

accelerated testing machine, built to army specifications, is used to test the resistance to corrosion and breakdown of protective coatings by exposing test panels to brine-laden atmosphere. This machine is rubber-lined and also has rubber piping.

In addition, an outdoor test fence or rack located on the roof of the building is maintained to check standard panels under conditions of actual exposure. Apart from laboratory analyses and tests, the Rock Island also maintains records of actual service results on buildings, bridges, signal towers and other structures so that these may be compared with laboratory results.

All test panels are prepared in an explosion-proof and fire-proof room designed for that purpose. The spray cabinet is equipped with an overhead sprinkler, controlled from the outside; also outside-controlled booth doors with fusible links were installed as an additional precaution. Other equipment includes a drying rack and the necessary standards and sample storage cabinets. Paints submitted by different manufacturers are applied to glass or wood and steel panels for comparison with railway standards. A separate room has been provided where chemical tests may be applied to samples of protective coatings and its work tables are equipped with fume hoods. Air, water, gas and vacuum connections are conveniently located along the center line, thus permitting both sides of the large work table to be used at the same time.

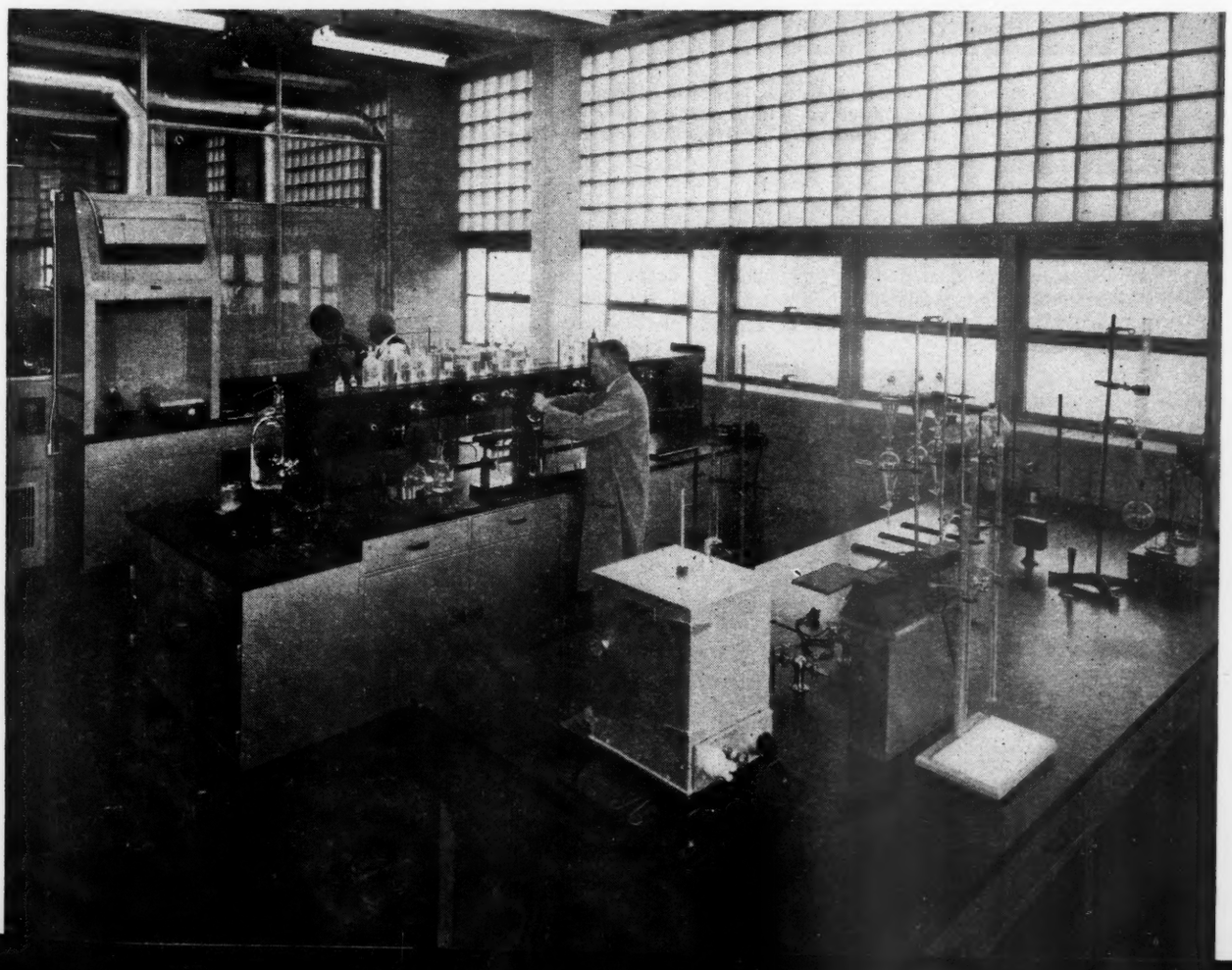
Selecting Petroleum Products

One of the most important and interesting laboratories in the new building is that devoted to petroleum products. It is equipped with an extensive array of modern apparatus, designed to maintain careful control over all fuel oils, lubricants, cutting oils and other similar preparations used on the system. Latest types of viscosimeters are provided, including single and multiple tube Saybolt types with automatic temperature controls and kinematic viscosimeters.

The increased use of Diesel-electric locomotives on the Rock Island Lines and the speeding-up of both freight and passenger trains means increasing importance in the adequate control of all petroleum products that enter into these operations. It is particularly for this reason that added stress is being placed upon this laboratory. All tests are run as a matter of routine; hundreds of samples of fuel and lubricants are shipped to the laboratory periodically from engine terminals all over the road.

A series of field tests or checks by maintenance men at the end of locomotive runs also have been developed. Although considerable reliance is placed upon filtering systems of the locomotives themselves, special care is, nevertheless, exercised at every terminal, in checking the quality of crank case lubricating oils to preclude the possibility of locomotive failures on this account. For example, one of the most interesting developments is the design and use of a small but practical viscosimeter which permits quick comparisons of Diesel lubricants with known standards. Lubricating oils of known viscosity, which have been prepared and tested by members of the testing laboratory staff, are placed in glass test tubes; three of these tubes are fixed in a steel frame, and the fourth may be filled with oil drawn from the crank case of a Diesel-electric locomotive. A comparison of the viscosity may be determined merely by reversing the position of the test rack and observing the rate of rise of the bubble in the specimen tube compared with those in tubes containing oils of known viscosity. This field check is taken at the end of each locomotive run and has proved a practical means of anticipating and preventing lubrication failures before they happen. Co-ordinated laboratory and field tests for Diesel-electric locomotive lubricants throws blanket protection around these costly units of motive power and has had a definite bearing upon the high availability rating that

The laboratory for chemical analysis of protecting coatings, in addition to the usual equipment, is equipped with fume hoods, fluorescent lights, hot plates, ovens, a centrifuge machine and paint viscosimeters



Rock Island's new laboratory for testing lubrication oil, greases and fuel oil—Note viscosimeter, constant pressure distillation apparatus, pentrometer and the Diesel index apparatus

has been established for them in Rock Island freight and passenger service.

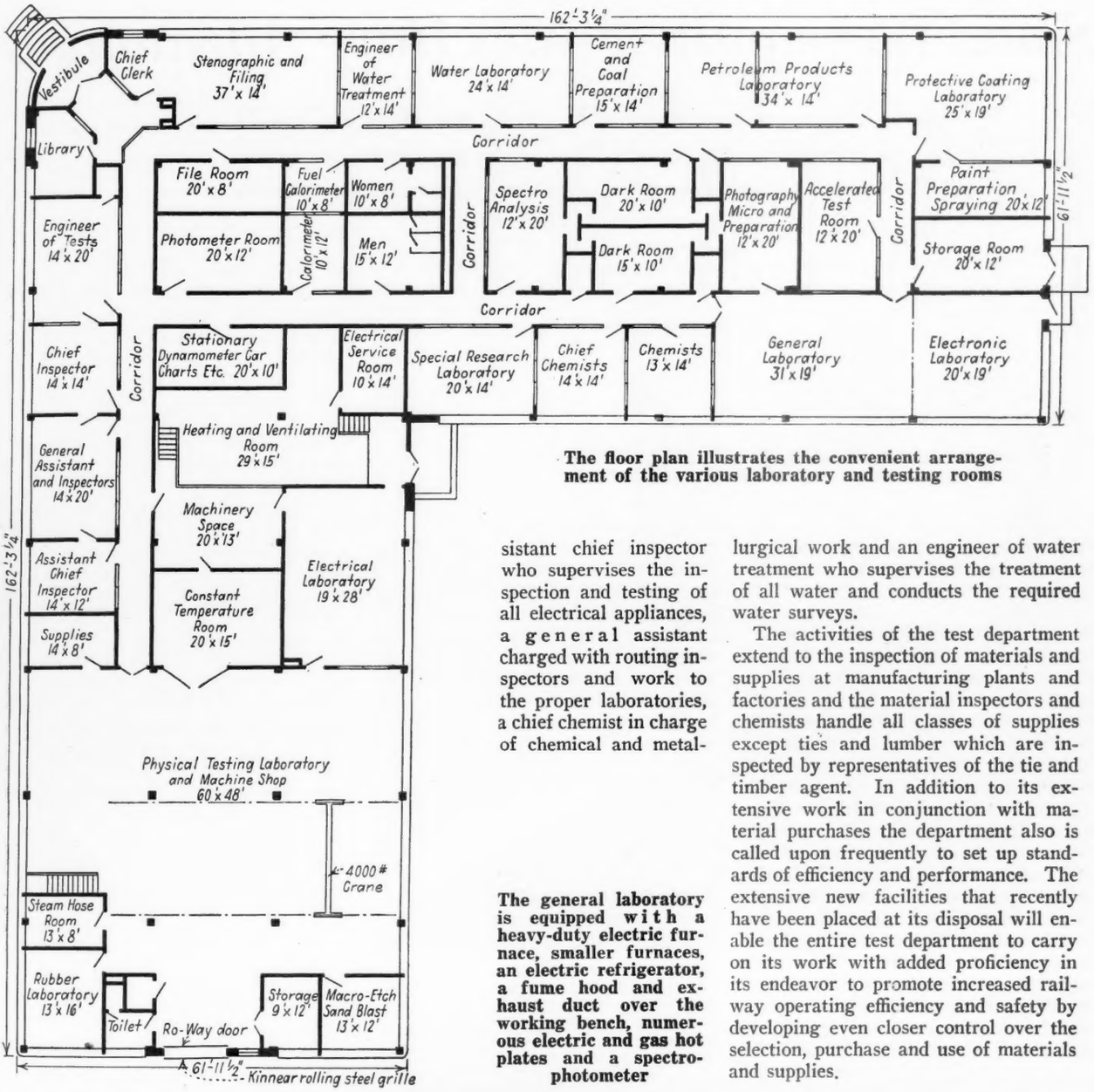
Another laboratory device that is closely associated with practical observation is the use of a Lawson one-cylinder internal combustion engine, mounted on an electric hot-plate. This engine is used to test laboratory oil specimens to destruction. By means of the hot-plate, any desired temperature may be attained and, since the cost of the entire outfit is relatively small, it may be operated under conditions that may destroy both the cylinder and its piston.

A Falex lubricant tester is used to determine film strength anti-welding properties at varying loads and temperatures. This device uses test pins which, when fixed within the machine, are submerged in a bath of the lubricating oil to be tested and the container rests on an electric hot-plate to provide desired testing temperatures, and the oil bath is equipped with a recording pyrometer. The loading is automatically applied through a ratchet or it may be regulated manually. The torque and loading are shown on indicating gages.

Tests are made on all current shipments and close checks are carried on to maintain supplies of desired grades of fuel oil; tests include that for usual characteristics in respect to viscosity, pour and cold points, carbon residue, sulphur content, and potential gum and lacquer formation. Substantial evidence of the value derived from prolonged intensive investigations, road tests and laboratory research in conjunction with the design, selection and use of lubricants and fuel oils is to be found in the performance records of Rock Island locomotives and passenger and freight train cars.

Cement, coal, ballast and aggregates for concrete also come in for their share of attention. The laboratory devoted to this purpose contains, in addition to other equipment, a Ro-tap power-actuated sieve-testing machine which, by the arrangement of the various sieves and the careful control that may be exercised over their sifting, is another big time-saver and assures more accurate results than ordinary hand methods. The equipment also includes a jaw crusher and a pulverizer used in the preparation of coal and other materials for tests, as well as an abrasive wear-testing machine used to test ballast specimens for wear and dusting properties.

One of the oldest divisions of the testing department is that devoted to water analyses, and the new laboratory is fully equipped to maintain careful control over all water used for both steam and Diesel locomotives. It is well known that the quality of the water supply for locomotives is closely associated with operating efficiency and the maintenance cost of locomotives. Not only do high speed, extended runs and increased size



The floor plan illustrates the convenient arrangement of the various laboratory and testing rooms

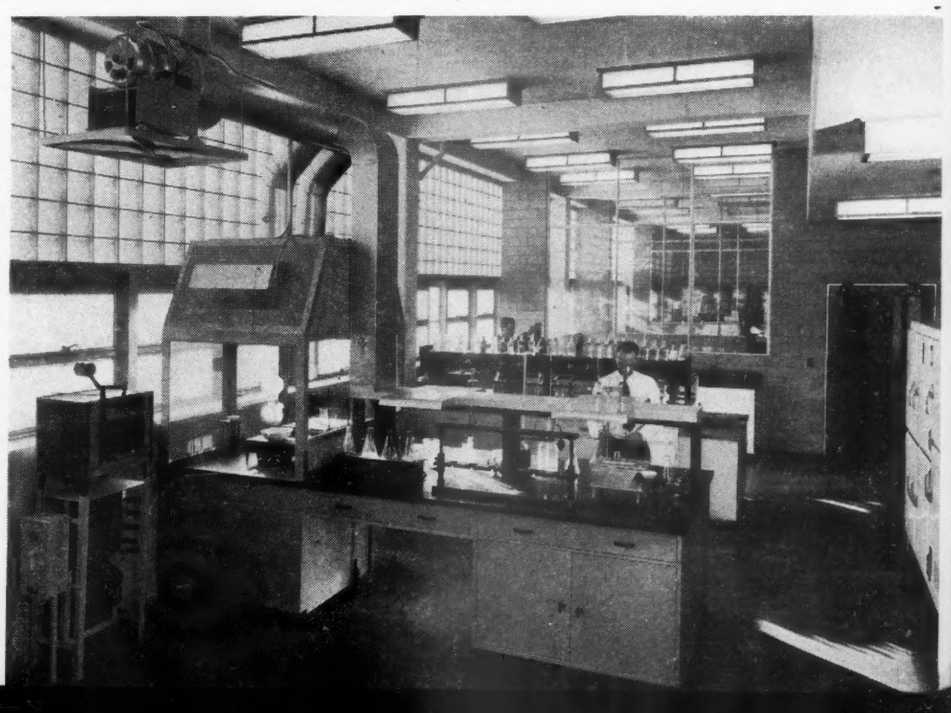
sistant chief inspector who supervises the inspection and testing of all electrical appliances, a general assistant charged with routing inspectors and work to the proper laboratories, a chief chemist in charge of chemical and metallurgical work and an engineer of water treatment who supervises the treatment of all water and conducts the required water surveys.

The activities of the test department extend to the inspection of materials and supplies at manufacturing plants and factories and the material inspectors and chemists handle all classes of supplies except ties and lumber which are inspected by representatives of the tie and timber agent. In addition to its extensive work in conjunction with material purchases the department also is called upon frequently to set up standards of efficiency and performance. The extensive new facilities that recently have been placed at its disposal will enable the entire test department to carry on its work with added proficiency in its endeavor to promote increased railway operating efficiency and safety by developing even closer control over the selection, purchase and use of materials and supplies.

The general laboratory is equipped with a heavy-duty electric furnace, smaller furnaces, an electric refrigerator, a fume hood and exhaust duct over the working bench, numerous electric and gas hot plates and a spectrophotometer

make it imperative that steam locomotives be supplied with the best quality of water that can be economicaly obtained, but Diesel locomotives in both freight and passenger service also require water for cooling and heating that will meet their specific requirements. The Rock Island has a total of 126 water-treating plants, of which 60 are of the lime and soda, 59 wayside, 5 Zeolite and 2 of the carbonaceous Zeolite types; internal treatment also is added at 42 locations.

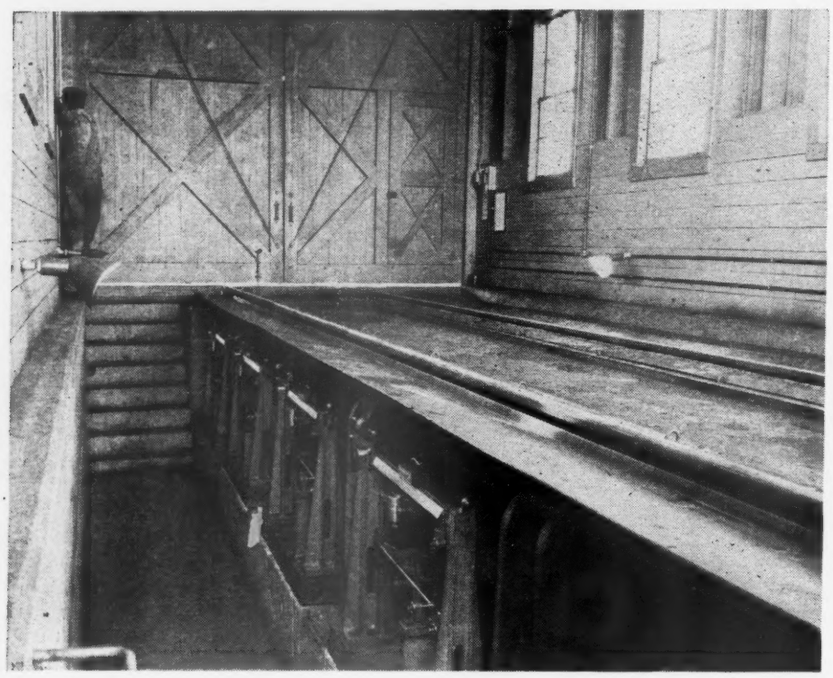
The supervisory personnel of the test department consists of the engineer of tests in charge of the department, a chief clerk in charge of the general office, a chief inspector in charge of all mechanical tests and inspections, an as-



Small Locomotive Scales Have Advantages

Southern constructs three units for checking weight distribution of motive power, to get better operation with fewer mechanical repairs and less damage to track

THE Southern has constructed a novel arrangement of plate-fulcrum wheel-load scales at three points on the system for checking and adjusting the weight distribution of locomotives. The scales, which involve interesting features of construction, and which weigh four axles at a time, were not constructed to obtain complete locomotive weights, but rather are precision instruments for detecting irregularities in weight distribution among the various wheels. As such, they are designed to insure maximum locomotive efficiency with fewer mechanical repairs, while at the same time eliminating damage to the equipment, track and bridge structures which may be caused by out-of-balance conditions.



The small locomotive scales, rather than larger ones, were installed because it was considered desirable to have scales at a number of points on the system where wheel weights could be checked. This desire was prompted by the fact that the Southern has a widely divergent system of lines, with 9 or 10 points where back-shop repairs are regularly scheduled. Furthermore, with the exception of the steam power used on through passenger trains, and except for some of its Diesel-electric locomotives, there is little exchange of motive

Left—Interior of locomotive scale house at Spencer, N. C., showing the four wheel scales on one side. Below—Exterior of the Spencer locomotive scale house

By J. N. TODD
Superintendent of Scales and Work Equipment, Southern

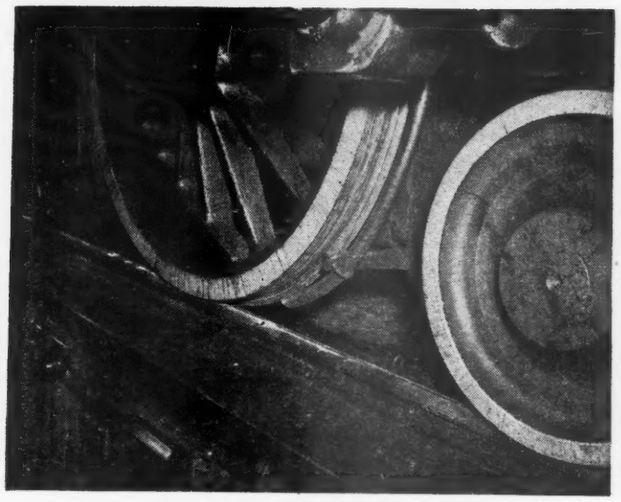
power between Eastern, Central and Western lines, or even between divisions on these lines.

While recognizing that a complete set of scales is desirable to determine accurately the total weight of a locomotive, it was not believed necessary to weigh an entire locomotive at one time to ascertain if good weight distribution exists. By using plate-fulcrum wheel-load scales, in which there is no relative vertical movement of the weigh rails when the load is applied or released, it was thought that accurate comparison of driver, front truck and trailer wheel weights could be obtained in separate weighings. This reasoning led to the development of the small locomotive scales, several more of which may be built at a later date.

Four-Axle Scales

The first of the scales on the Southern was constructed in 1942 and consisted of four wheel scales. Since that time, one more has been built, and a third is under construction. Briefly, each of the latter two installations comprise eight independent plate-fulcrum-type wheel scales, four in each rail, and each of 50,000 lb. capacity. These eight scales are arranged to weigh up to four axles at a time. The scale units and special sections of approach track at each end rest on a continuous reinforced concrete foundation supported on piles. The scale units are housed in a scale house 18 ft. by 38 ft., and the approach track sections extend 43 ft. beyond the scale house at each end.

Each of the eight independent wheel scales has a five-foot weigh, or live, rail, which is separated from the adjoining weigh rails by a dead rail 11¾ in. long, with ⅛-in. clearance at each end between the weigh rail and dead rail sections. The dead rails are fixed at a gage of 4 ft. 8 in. and are planed at the ends to meet the gage side of the weigh rails, which are fixed at standard gage. This centers the locomotive on the weigh rails and prevents the wheels from bearing laterally against the weigh rails on either side. Extreme care was exercised in design and construction so that the approach sections of track and weigh rails would be in the same plane, with a uniformly level surface, which is considered necessary if accurate weights are to be obtained.

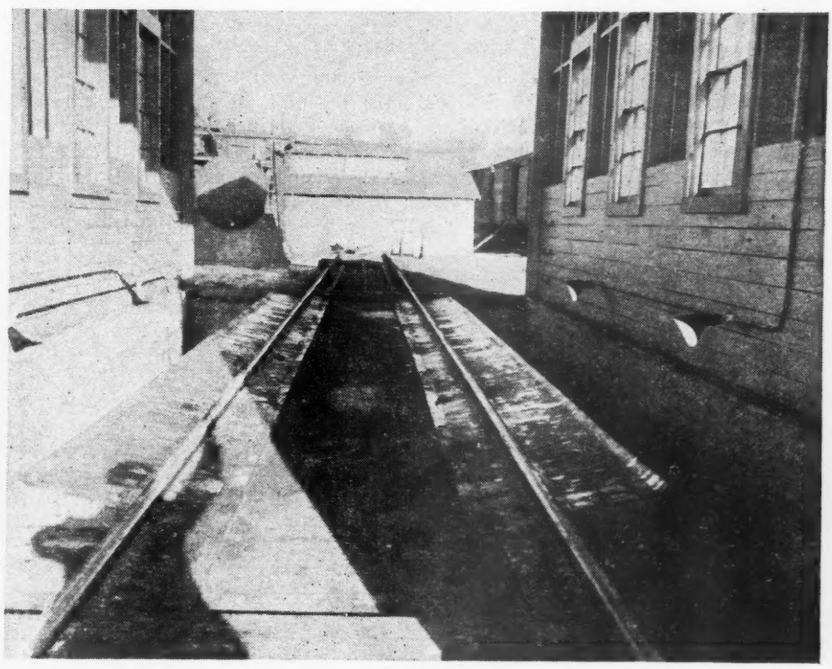


Close-up of front driver and rear front-truck wheel on weigh rails

Scale Foundation

One of the features of construction is the scale foundation, located in a pit which occupies the entire floor area of the scale house. Each row of four scales rests on a fabricated steel base, imbedded in the reinforced concrete foundation, with its top 5 ft. 8 in. below the top of rail. This base consists of two continuous 74-lb., 14-in. WF beams tied together with diaphragms, and was fabricated upside down on a level surface. The purpose of this was to make the top as near level as possible. After fabrication, a light cut was machined off the top surface of the beams as a further precaution, and, since the beams are continuous, a uniform base was thus assured for all scale units. When placing the beams in the forms, they were supported temporarily by overhead timbers, from which bolts extended down and screwed into holes in the flanges. These bolts were turned, as required, to bring the tops of the beams to a true level, and then the concrete was poured.

The approach track beyond the scales at both ends rests on ¾-in. steel plates, supported on concrete. The rails, which are of 100-lb. RE section, are held to line and gage by adjustable rail clips at two-foot intervals, secured in place by ¾-in. by 18-in. bolts embedded in



Top of the scales and approach track at the rear end of the Spencer scale house

SOUTHERN RAILWAY SYSTEM
LOCOMOTIVE WEIGHT REPORT

Engine No.____ Location _____ Date _____

Type of Engine_____ WHEEL ARRANGEMENT Front

FIRST WEIGHING							
Right Side							
Left Side							
Axle Weight							
SECOND WEIGHING							
Right Side							
Left Side							
Axle Weight							
Average Axle Wts.							
Diagram Weights							

SUMMARY

	First Weight	Second Weight	Average	Diagram Wts.
Engine Truck				
Drivers				
Trailer Truck				
TOTAL				

1. Engine to be in working order; 12" of fire on grates, 2 gages of water, tender buffer slack, brakes off, air pumps and blower shut off.
2. Engine must be pushed on scale; front end first.
3. Balance all weigh beams at zero and look down before putting engine on scale.

WEIGHER_____ TITLE_____

Form used for reporting locomotive wheel weights

the concrete. The top elevation of the approach rails was made exactly the same as that of the scale rails by using wedges between the concrete and base plates to get the proper elevation, and then by ramming Embeco under the plates.

The scale house is of frame construction, with the sills bolted to the concrete foundation. The structure has corrugated asbestos siding and roll roofing, and four windows on each side. Double-leaf doors at each end provide openings 16 ft. wide and 17 ft. high for the entrance or exit of locomotives. Access to the pit is at one end of the scale house by means of two concrete stairways, one on each side. Pit drainage was provided for by sloping the floor to 2-in. gutters along the side foundation walls, which drain into a sump.

Weighing Procedure

When a locomotive is ready to be checked for wheel weight distribution, all weigh beams are balanced at zero and locked. Then the engine is pushed on the scale, front end first. The engine must have 12 in. of fire on the grates, two gages of water, the tender buffer must be slack, the brakes off and the air pumps and blower shut off. At the end of the approach track adjacent to the first scale unit bumping plates are placed on the rails to shake down the locomotive and adjust the spring rigging, preparatory to weighing. The front truck wheels, the drivers, and the trailer wheels are weighed separately, and the process is repeated. Thus, two sets of wheel weights are obtained, and the averages are recorded as the final weights.

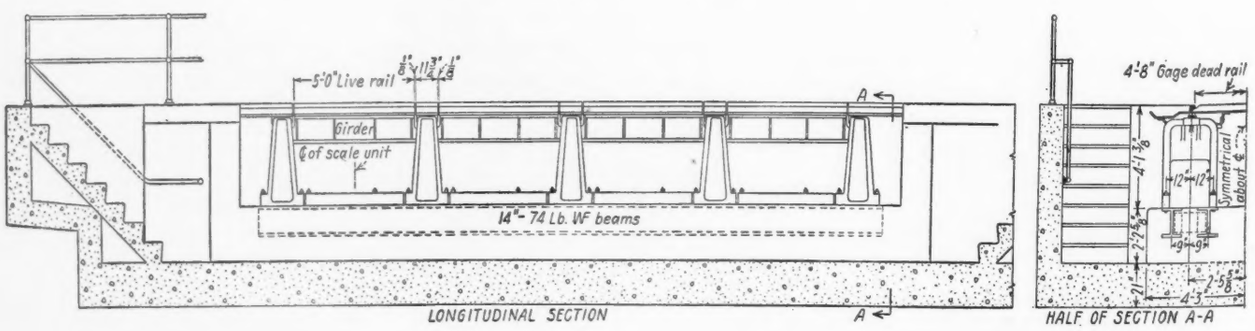
Typical Results

This method of weighing is adequate for determining when, and to what extent, the weights are improperly distributed. It also serves, at times, to disclose the exact cause of a defect reported by a locomotive engineer, but to which he has been unable to ascribe the cause. For example, a Mountain-type passenger locomotive was reported repeatedly as riding rough, indicating that something was wrong. The locomotive had been in the shop time after time, but the trouble was not corrected until it was weighed on one of the locomotive scales, where the weight on the pilot truck was found to be 10,000 lb. in excess of the designed weight. Adjustments were made, and when the locomotive was again weighed proper distribution of weight was shown. Rough riding was eliminated by these adjustments and the locomotive was subsequently continued in service without frequent trips to the shop.

In another case, a heavy Pacific-type locomotive was being shopped once or twice every month because of overheated bearings on the right side of the trailer truck. Much time was being lost and many man-hours of shop labor were being expended unsuccessfully in attempting to correct the condition causing the trouble, until it was found on the scales that the right side of the trailer was 6,000 lb. too heavy. Thus, the cause of the overheated bearings was found and the degree of correction indicated. When correction was made through the equalization system, so that each wheel carried its designed load, the locomotive was restored to service and four months later it was still in service without having been returned to the shop.

The wheel scale units in the locomotive scales on the Southern were furnished by Fairbanks, Morse & Company, Chicago.

Longitudinal and transverse cross sections of a locomotive scale pit



Fitzgerald Hall Dies at 56

Chief executive of the Nashville, Chattanooga & St. Louis succumbs after an extended illness

FITZGERALD HALL, president and a director of the Nashville, Chattanooga & St. Louis, with headquarters at Nashville, Tenn., died in that city during the night of February 7, following a long illness. He was 56 years old.

Mr. Hall was elected to the presidency of the N. C. & St. L. in November, 1934, succeeding James B. Hill, who had been selected to head the Louisville & Nashville following the sudden death of Whitefoord R. Cole. President Hall was only 45 when he assumed N. C. & St. L. leadership—at that time one of the youngest men to serve as chief executive of a large railroad. The *Railway Age* at the time reported his election as "another instance where a man of legal training has been selected to guide a railroad through the maze of legal red tape with which the carriers are confronted today. However, in his 20 years of service with the N. C. & St. L., Mr. Hall has worked closely with his two immediate predecessors [Mr. Cole and Mr. Hill], and has thereby acquired a broad and intimate knowledge of the affairs of the railroad in general."

The early years of Mr. Hall's management of the road were burdened with problems arising from the depression and from inroads on railroad and passenger traffic by competing agencies of transportation. Grain, automobile and oil shippers in increasing numbers chose to move their products by combined barge-truck facilities. The net deficit of $351,939 in 1934 more than doubled in 1935 to total $791,460. Thereafter the situation began to improve, and the N. C. & St. L. management helped along the trend by betterments to increase the efficiency and attractiveness of the company's service. Between 1937 and 1942 (the road's net income reaching a high of $4,319,615 in 1942), the Nashville, Chattanooga & St. Louis had expended $13,704,628 for additions and betterments and the operating expenses incidental thereto, but exclusive of any maintenance expenses. It was during this period of rehabilitation that centralized traffic control was introduced—an improvement which has since been continually extended.

Unable to make any payment to stockholders in the years 1932-39, the N. C. & St. L., in 1940, resumed dividends with an initial disbursement of $1 per share. In 1941 $2 was paid and, in 1942 and 1943, the annual payment was $3. It was $2 again in 1944 and 1945.

Throughout his career, Mr. Hall consistently fought for greater public understanding of the economics of transportation—and, in particular, for withdrawal by government from a position of favoritism of certain types of transportation. He foresaw little long-run hope for a vigorous railway industry under private ownership unless "government should once again confine itself to its proper functions; stop invading the field of management; get out of competition with the railroads; and treat all carriers in substantially the same reasonable way." He also urged amendment of transportation regulation to permit the railroads to engage in general transportation business.

Mr. Hall was born in Nashville, Tenn., on December 6, 1889. A Phi Beta Kappa member, he received his B.A. degree from Vanderbilt University in 1911 and his LL.B. from the same institution in 1913. He began practicing law with the firm of Childers & Woodward in Pulaski, Tenn., in 1914, becoming an assistant United States district attorney, Middle district of Tennessee, shortly thereafter, and served in that office until 1915. That year, he entered the service of the Nashville, Chattanooga & St. Louis as assistant general counsel.

During World War I he served under the United States Railroad Administration and, upon the return of the railroads to private management in 1920, he was promoted to general counsel for the N. C. & St. L. In 1926, after eleven years' railroad service, he was elected vice-president of the N. C. & St. L., at the same time retaining his post as general counsel. This was the position he held when, in 1934, he was elected chief executive of the company.

Harris & Ewing, Washington, D. C.

Fitzgerald Hall

A member of the directorate of his road since 1933, Mr. Hall also served as director of the Federal Reserve Bank of Atlanta (Ga.), Memphis (Tenn.) Union Station Company, United States Chamber of Commerce, Alabama Fuel & Iron Company, and Fruit Growers Express Company. He was a member of the American and Tennessee bar associations, president of the Southern States Industrial Council, and had served also as president of Phi Beta Kappa. One of the board of trustees of Vanderbilt University, Mr. Hall taught law classes at the institution for 11 years following the death of his father, who had been dean of the law school there. Possessing a mature social philosophy and the ability to expound it, Mr. Hall was a leader in public life—as a spokesman for the legal profession and the railway industry, as well as for the historic part of America which was his home. He was a courageous and articulate champion of traditional institutions of freedom until ill-health curbed the wide range of his activities.

* * *

NEW BOOK . . .

A Railroad for Tomorrow, by Edward Hungerford. 323 pages. 9 in. by 6 in. Bound in cloth. Published by Kalmbach Publishing Co., Milwaukee 3, Wis. Price, $5.

This work is quite accurately characterized as fiction, but less justifiably called a novel. Perhaps the author's own description—"a whimsy of possibilities"—is as adequate a phrase as any to indicate where it belongs on the library shelf.

It is Mr. Hungerford's thesis that the railroads should be going into the postwar period with a "well developed and highly modern plan for their future," as otherwise "Washington" will have a plan, "and it will be a government-ownership plan, with all that that involves." It is to avert this catastrophe, he explains, that this book, with all its fiction and its fantasy, was written. "Someone has had to look forward into the future and to produce a plan for the railroads," or, "rather than a plan, call it a pattern—a pattern which in the wisdom of future happenings may be found wise to discard completely."

This pattern is, in brief, a consolidation of 118 "Class A" railroads into the United States Railroad, "one big railroad," to be made up of 21 separate operating units, with the central organization handling such matters as financial, legal, personnel, and public relations problems, design of equipment, preparing tariffs, and planning new lines or routes. The executive head of this organization would be a director general (the hero of Mr. Hungerford's story) appointed by the President of the United States, and its affairs would be administered by a 42-man self-perpetuating board of directors, made up of the 21 "presidents" of the operating units and an equal number of "public" representatives, including 6 heads of railway labor unions, the president of the U. S. Chamber of Commerce and of the National Association of Shippers' Advisory Boards, the Speaker of the House, the Vice-President of the United States, and the chairman of "the interstate commerce committee"—but no bankers.

The merger of the individual railroads into the central organization would be effected by exchange of securities on the basis of average market values over a 5-year period, and the bonds and preferred stock of the new company would be guaranteed by the United States Treasury. The common stock would not be guaranteed. Against a par value of $24 billion of securities of the old roads the new obligations thus issued would total $17 billion, but an additional $7 billion or so would be authorized, for issue as required, for future needs.

Among various provisions of the "pattern" that would contribute to its success Mr. Hungerford has arranged to do away with "full crew" and train limit legislation and to have "featherbedding abolished and all the complicated old-time agreements torn up" by the brotherhoods. Truck competition would be disposed of by the simple expedient of passing a law limiting trucks to 5 tons' capacity, prohibiting trailers, and restricting truck hauls to 200 miles or less where rail service is available. The railroads, in return, would not handle freight for distances under 100 miles if it could be handled by truck.

In setting up the 21 operating units of the one big railroad, the author has not followed the Interstate Commerce Commission's consolidation plan. Six of these would be what he calls terminal systems; namely, one including all the New England roads, one taking in all the lines in the state of Texas and part of Louisiana, and a third one covering Florida south of Jacksonville and Pensacola, with the other three on the Pacific coast, one (the Northern Pacific) taking in all lines west of Billings, Mont., and Havre and north of Portland, another (the Central Pacific, divorced from the Southern Pacific) including the S.P.'s Portland-Oakland, Ogden-Oakland and San Joaquin Valley lines, and also the Western Pacific, and the last (called the Southern Pacific) taking in the rest of the S.P. system west of El Paso, the Santa Fe's lines west of Albuquerque, and the Union Pacific's Los Angeles to Salt Lake City line.

The other 15 units would be built around present-day trunk line and transcontinental railroads, generally speaking. In the East the New York Central, Erie, Pennsylvania and Baltimore & Ohio would be the basic units, with the Erie taking in also the Lackawanna, Chesapeake & Ohio, Pere Marquette, and Bessemer & Lake Erie and winding up with a new name—Chesapeake & Erie. The N.Y.C. would get the Virginian and the Delaware & Hudson north of Albany; the Pennsylvania would get the Lehigh Valley, Wabash and Norfolk & Western; and the B. & O. the Reading-Jersey Central and Western Maryland. In the South there would be four systems also, based on the Southern (to which the Monon would be added), the Atlantic Coast Line (including the Louisville & Nashville and Chicago & Eastern Illinois), Seaboard (with the Clinchfield and Gulf, Mobile & Ohio—which had not tied up with the Alton when the plan was worked out), and Illinois Central, which would lose its lines west from Chicago and gain none.

In the Midwest, systems would be based on the Union Pacific (taking in the North Western's line between Council Bluffs and Chicago), the Burlington (including the Colorado & Southern, Alton, and western lines of the Illinois Central), the Santa Fe (which would lose its lines west of Albuquerque but take on the Rock Island's east from Kansas City and Omaha) and the North Western (to which would be assigned, presumably, what remained of routes west and north from Chicago as far as the Montana gateways. There would be two systems in the Southwest, the Missouri Pacific (with that road's line west from St. Louis, plus the Kansas City-El Paso route of the Rock Island, and the Frisco and Katy lines north of Texas) and the Iron Mountain (taking in the M.P.'s St. Louis-Texarkana stem, the Rock Island from Memphis west, and the Cotton Belt). The book does not reveal the constitution of the twenty-first system.

One result of this scheme, Mr. Hungerford says, would be the abandonment of many miles of railroad and the more efficient use of the rest. He would build the line from Easton, Pa., to Pittsburgh once sponsored by L. F. Loree, and so reduce the short line distance from New York to Chicago to 830 miles, and would build a few shorter connecting lines. He would add a new "Grand Central West" to New York's passenger stations, providing a loop under the Hudson to bring the New Jersey lines into it. He would connect Boston's South station to a new North station on the other side of the Charles river, rearrange the passenger terminal lay-out in Chicago, and bring trains into San Francisco from the North and East over a trans-bay bridge.

Without developing the freight traffic angles of the one big railroad very thoroughly, Mr. Hungerford has worked out specimen routes and time-tables for cross-country passenger trains, even letting his imagination run to the extent of one from New York to Fairbanks, Alaska, and one from New York to Mexico City and perhaps on to Panama or Buenos Aires. At any rate he has had an amusing time working out his ideas of short routes and fast schedules, no doubt, and it is doubtful if his proposals could be seriously challenged from an engineering or operating standpoint. Whether or not the country's political and social and economic evolution will take a course that would make the suggested "pattern" feasible or logical is, of course, another question.

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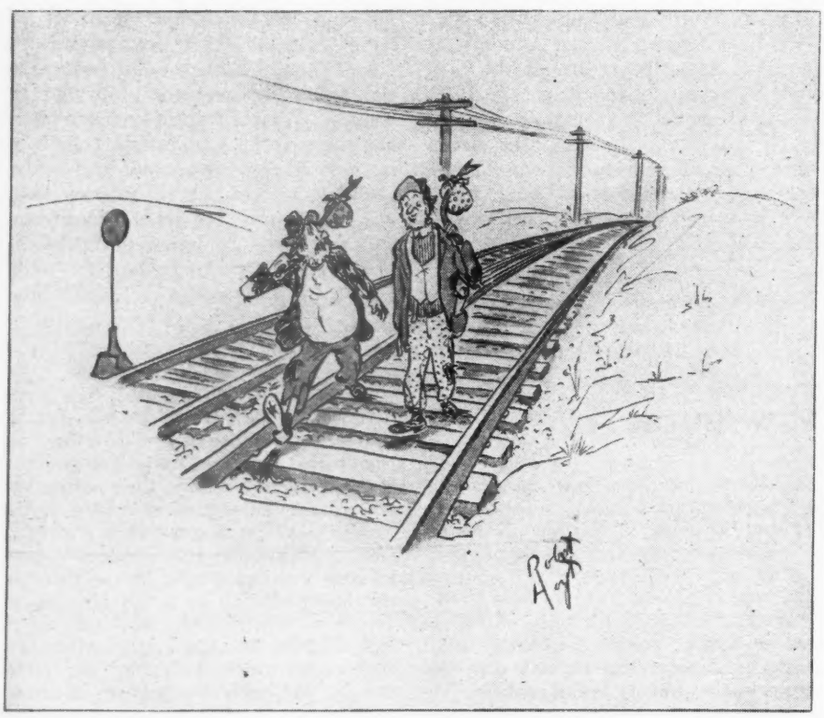

"The railroads' number one post-war project ought to be better spacing of ties."

GENERAL NEWS

1945's Net Income Was $453,000,000

Net railway operating income for last year was $849,779,893

Class I railroads of the United States in the year ended December 31, 1945, had an estimated net income, after interest and rentals, of $453,000,000, according to the Bureau of Railway Economics of the Association of American Railroads. This compares with a 1944 net income of $667,200,000.

Net railway operating income, before interest and rentals, of the Class I carriers in 1945 amounted to $849,779,893, compared with $1,106,384,412 in 1944, a decrease of 23.2 per cent. This decrease the A. A. R. statement said, resulted largely from a decrease in traffic due to the cessation of hostilities in both Europe and the Pacific; increased operating costs due to higher wages and increased costs of fuel, materials and supplies used in connection with railroad operation; and increased charges to operating expenses for accelerated amortization of defense projects.

The rate of return averaged 3.05 per cent in 1945, compared with 4.00 per cent in 1944.

Total operating revenues in 1945 amounted to $8,902,349,173 compared with $9,436,789,812 in 1944, a decrease of 5.7 per cent. For the month of December alone, total operating revenues were $613,691,363, a decrease of $143,166,299, or 18.9 per cent, under December, 1944. Operating expenses for the year 1945 amounted to $7,051,809,332 compared with $6,282,062,686 in 1944, an increase of 12.3 per cent.

Class I roads in the Eastern district in 1945 had an estimated net income of $168,000,000, compared with $266,200,000 in 1944. Their 1945 net railway operating income of $342,624,211 compared with $455,399,130 in 1944.

Gross in the Eastern district in 1945 totaled $3,765,751,253, a decrease of 7.8 per cent compared with 1944, while operating expenses totaled $3,165,505,029, an increase of 9.3 per cent.

Class I roads in the Southern region in 1945 had an estimated net income of $50,000,000 compared with $97,200,000 in 1944. Those same roads in 1945 had a net railway operating income of $115,160,981 compared with $163,226,359 in 1944. Gross in the Southern region in 1945 totaled $1,229,534,611, a decrease of 7.8 per cent compared with 1944, while operating expenses totaled $950,069,777, an increase of 13.2 per cent.

Class I roads in the Western district in 1945 had an estimated net income of $235,000,000 compared with $303,800,000 in 1944. Their 1945 net railway operating income of $391,994,701 compared with $487,758,923 in 1944. The 1945 gross in the Western district totaled $3,907,063,309, a decrease of 2.8 per cent compared with 1944, while operating expenses totaled $2,936,234,526, an increase of 15.2 per cent.

CLASS I RAILROADS—UNITED STATES
Twelve Months Ended December 31

	1945	1944
Total operating revenues	$8,902,349,173	$9,436,789,812
Total operating expenses	7,051,809,332	6,282,062,686
Operating Ratio—per cent	79.21	66.57
Taxes	825,959,244	1,846,096,826
Net railway operating income (Earnings before charges)	849,779,893	1,106,384,412
Net income, after charges (estimated)	453,000,000	667,200,000

Broadcast on "Railroads of the Future"

"The Railroads of the Future" will be described through narration, dramatization, interviews, and discussions on the National Hour of the National Broadcasting Company on Sunday, February 24, from 4 to 4:30 p. m., eastern standard time. The program will be heard over most of the N. B. C. stations.

Narrators on the show will be Robert St. John and Robert McCormick, and there will be several speakers, including J. J. Pelley, president of the Association of American Railroads.

Welding Replaces Riveting on New C. P. R. Boiler

The first Canadian locomotive to be equipped with an all-welded boiler instead of the standard riveted construction was delivered to the Canadian Pacific by the Montreal Locomotive Works last week. The new engine, No. 1216, will complete its 1,000-mile test running between Montreal and Smith's Falls before going to the company's lines in Western Canada. One more engine of the same class, designed for post-war replacement of older motive power, also will be equipped with the new boiler and will be operated in Eastern Canada.

C. P. R. Record Mileage Scored by Trains for 1945

The Canadian Pacific established an all-time record in 1945 when its total train-mileage aggregated 55,811,000. The total shows a substantial increase over the previous high of 55,700,602 train-miles in 1944, while the pre-war total of 39,918,917 falls far behind.

Lea Inquiry Plans Not Revolutionary

Accomplishment of "constructive purpose" is only aim of transport inquiry

No "revolutionary ideas" are being entertained by the House committee on interstate and foreign commerce as it prepares for its "national transportation inquiry" with the thought that the investigation should produce only the minimum amount of new legislation necessary to accomplish a "constructive purpose." That is the way the committee's chairman—Representative Lea, Democrat of California—viewed the proposed study in an address at the thirty-ninth annual dinner of the Traffic Club of Washington, D. C., which was held at the Mayflower Hotel in that city on February 7.

The committee's inquiry is proposed in House Resolution 318, introduced last year by Mr. Lea and still pending before the House rules committee. Meanwhile, the interstate commerce committee has been at work on preliminaries, including the receipt of returns to the "list of suggested topics" which it sent out to interested parties last August.

Inquiry's Purpose—The "constructive purpose" which Mr. Lea said the committee has in mind is to create regulatory conditions in the transportation field under which each type of carrier "performing a useful service" will be able to earn a "fair return." The committee, as Mr. Lea put it, believes it has an opportunity to bring about improvements in the management, service, and regulation of the carriers.

Meanwhile Mr. Lea had got his address under way with his assertion that public ownership of transportation does not fit in this country, which, however, has the real problem of making "private ownership and government regulation work to provide better transportation." In the latter connection he went on to list three "fundamentals" of sound regulation as follows: A rate structure under which the carriers can earn a fair return; reasonable rates and adequate service for shippers; and conditions of "fair competition."

From a regulatory standpoint, the matter of "fair competition" may in the future require a "greater finesse" on the part of regulatory agencies, Mr. Lea continued, adding that reliance must be placed on "the good sense of the Interstate Commerce Commission," which has thus far "set an example that might well be followed by other government agencies." It must not be forgotten, he went on, that a transportation agency "lives on its balance

sheet," and thus "we must preserve and protect the rate of the most economic carrier"—which is "another way of saying that we must not permit cutthroat competition."

Value of Common Carriers—The speaker conceded that the "most economic carrier" is not easily identified in specific situations, for there is a "broad field for competition." He does believe, however, that consideration should be given to the fact that each carrier has some aspects of superiority for certain types of carriage. Among other things, the government "must recognize the continuity of common carrier service and take care of its value," he added, pointing out that the common carrier "goes in all weather whether the load is a pay load or not."

Mr. Lea believes that "in the main" the regulation of all carriers should be the responsibility of one government agency, for it is difficult otherwise to bring about "equality of conditions." Because all domestic carriers except the air lines are now under I. C. C. jurisdiction, he thinks that government regulatory policy has reached a point where it can deal with the "competitive situation."

He noted that the railroads must make large investments in equipment and facilities if they are to effect the modernization necessary to hold their place in the transportation field. Thus he asked if there were not some regulatory plan for transportation under which the railroads would have a better standing with investors, putting them in a position to finance with stock and thus setting their financial structures up on a depression-proof basis.

Capital Requirements—In the same connection, Mr. Lea noted the needs of the intercoastal water carriers for more profitable conditions than those prevailing in the pre-war period; and the trucking industry's emergence from the war period of high-cost operations "in a poor position to finance modernization." Practically all agencies of transportation, he said, use the bulk of their earnings for the payment of wages and purchases of materials and supplies. For themselves, they have made "generally very moderate incomes."

Meanwhile, as Mr. Lea outlined it, the committee's inquiry will go into various other matters in addition to these problems relating to a fair return for carriers under conditions of fair competition and a rate structure equitable to shippers. Among such other matters he mentioned government aid to carriers, trade "barriers" affecting transportation, and the problem of the "submarginal carrier" which serves a useful purpose. The committee, the chairman assured his audience, has no preconceived ideas—it is inviting the views of interested parties rather than telling what it thinks should be done. And before any legislation is enacted "every interested party" will have an opportunity to be heard again.

Presiding at the meeting was the club's president—Roland E. Dobbins, who recently became general traffic manager of the Northrup-King Grain & Seed Co., Minneapolis, Minn. Mr. Dobbins was previously associated with the Department of Agriculture in Washington.

Phila. Passenger Association Elects Officers

At the annual meeting of the Philadelphia Passenger Association, held at the Adelphia hotel February 4, M. F. X. Ivers, city passenger agent of the Santa Fe, was elected president for the year 1946. Others elected include: T. A. Seery, Reading, first vice-president; L. J. McKernan, Union Pacific, second vice-president; E. B. Saltmer, Baltimore & Ohio, secretary; W. F. Vitt, Missouri Pacific, treasurer; J. C. Ross, Atlantic Coast Line, historian.

N. & W. Improves Fast Freight Schedules

By reducing running time and adjusting schedules of its through freight trains from Cincinnati, Ohio, and Columbus to Norfolk, the Norfolk & Western expects to effect a time saving to shippers of as much as 24 hours. Train No. 86 previously left the Ohio terminals after midnight and arrived at Norfolk at 4:55 on the second afternoon —too late for unloading the same day. On the new schedule, effective February 5, No. 86 will leave Ohio terminals at 9 p. m. and arrive at Norfolk at 4:45 the second morning; still late enough to handle all traffic arriving in Cincinnati or the day of departure, but arriving at Norfolk early enough to allow loading on coastwise freighters the same day. Train No. 85 leaves Norfolk at 12:15 a. m. and arrives at Cincinnati at 8:30 on the second morning, two hours earlier than the old schedule.

The Norfolk & Western has made a number of other changes in its freight service in conjunction with the rescheduling of the above-mentioned trains, with the intention of improving the overall service to shippers.

Larger Deficit on South Australian Railways

The annual report of the South Australian Railways (state-owned) for the fiscal year ended June 30, 1944, shows a gross revenue of £6,001,982 (the pound sterling is currently exchanged at approximately $4.03). This compares favorably with the gross revenue of £5,832,475 for fiscal 1943, and £3,183,562 for the first year of the war (fiscal 1940). Operating expenses were £5,114,652 for fiscal 1944, £4,563,089 for fiscal 1943, and £2,830,081 for the first year of the war—giving operating ratios of 85.2 per cent, 78.2 per cent, and 88.9 per cent for the three years, respectively. The deficit for fiscal 1944 after payment of interest charges and sinking fund installments was £474,319, whereas during fiscal 1943 it was only £72,677. During fiscal 1940 the deficit was £995,154.

On June 30, 1944, the South Australian Railways operated 1,0667 miles of 3-ft.-6-in.-gage track, and 1,481 miles of 5-ft.-3-in. gage. The total capital investment per mile was £11,740. The railways moved 3,672,725 long tons of revenue freight, carried 27,356,303 passengers, and employed 11,834 persons. Equipment consisted of 324 locomotives, 635 passenger cars, and 7,932 freight and work train cars.

Schedule P. & S. Meeting for Chicago June 20-21

The 1946 annual meeting of the Purchases and Stores Division of the Association of American Railroads will be held at the Palmer House, Chicago, June 20-21, according to information released by W. J. Farrell, executive vice-chairman. Arrangements for the first annual post-war meeting are now well under way in anticipation of a large attendance because of the renewal of these conventions which were discontinued during the war.

Representation of Employees

The National Mediation Board has certified recent elections as a result of which the Brotherhood of Locomotive Engineers has supplanted the Brotherhood of Locomotive Firemen & Enginemen as Railway Labor Act representatives of locomotive firemen, hostlers and hostler helpers employed by the River Terminal, and the Brotherhood of Railroad Trainmen has displaced the Order of Railway Conductors as representative of Mississippi Central road conductors.

As a result of other recent elections, the American Train Dispatchers Association has supplanted the Order of Railroad Tel-

* * *

Nineteen Chinese railway technicians, the first to complete a one year's on-the-job training course on American railroads, and officers of the A. A. R. (rear) who talked with them at "graduation" exercises in Washington, D. C.

egraphers as representative of Missouri & Arkansas train dispatchers; the Hotel & Restaurant Employees International Alliance has displaced the National Organization Masters, Mates & Pilots of America as representative of dining room and kitchen employees in the Pennsylvania's marine department; and the Utility Workers Union of America, Congress of Industrial Organizations, has supplanted the Independent Clerical Association of Employees of the Hudson & Manhattan Railroad Company as representative H. & M. clerical and storehouse employees.

On the Canadian Pacific's eastern lines in New England, the B. of R. T., challenged by the Order of Railway Conductors, was saved by a tie vote, thus retaining its right to represent the C. P. R. road conductors involved. On the Erie, the National Council of Railroad Patrolmen's Unions, American Federation of Labor, defeated the challenging Railroad Police Benevolent Association, thus retaining its right to represent patrolmen, including lieutenants and sergeants. On the Pittsburgh & Ohio Valley, the C. I. O.'s United Steel Workers of America won two recent elections, defeating the B. of R. T. for the right to represent yardmen and the B. of L. F. & E. for the right to represent locomotive firemen. The B. of R. T. and B. of L. F. & E. first sought these elections, the P. & O. V. employees being unrepresented at the time. On the Pennsylvania-Reading Seashore Lines, the B. of R. T. has been chosen by the previously unrepresented yardmasters.

British Railway Improves Parcel Traffic Handling

The Great Western (England) is introducing experimentally a "zone" system for the collection and delivery of "smalls" (i. e., parcels or express traffic). Instead of handling this business to and from trains at every local station as heretofore, under the new system the railway will be divided into zones of approximately 30 miles' radius and all of the traffic will be concentrated at one or more central stations for the entire zone. Under this experimental program the "smalls" traffic is being concentrated at 5 stations in the Birmingham area, instead of at 22 stations as formerly.

A. S. M. E. Railroad Division To Meet At Chattanooga

In connection with the spring meeting of the American Society of Mechanical Engineers, scheduled to be held at the Hotel Patten, Chattanooga, Tenn., April 1 to 3, the Railroad Division plans to sponsor a technical session or symposium on welded locomotive boilers. The morning of April 2 will be devoted to an inspection trip to the plant of the Combustion Engineering Company at Chattanooga where the original Delaware & Hudson welded locomotive boiler was stress relieved. At 2:00 p.m. on April 2, Railroad Division members will reconvene at the hotel where the principal paper, "The Welded Locomotive Boiler," will be presented by James Partington, manager, Engineering Department, American Locomotive Company.

Supplementary papers or discussions will include "Service Performance and Maintenance of the Welded Locomotive Boiler," by G. S. Edmonds, superintendent motive power, Delaware & Hudson; "Fabrication and Heat Treatment of the Welded Locomotive Boiler," by A. J. Moses, vice-president and general manager, Chattanooga plant, Combustion Engineering Company; "Remarks on Developments in the Use and Prospective Use of Fusion-Welded Locomotive Boilers," by John M. Hall, director, Bureau of Locomotive Inspection, Interstate Commerce Commission.

C. P. R. Opens Vigorous Drive for Tourist Travel

Canada's tourist trade will be given major support in the Canadian Pacific's advertising campaign to be launched this spring in leading United States periodicals. Resort hotels, lodges, and the attractions of the Canadian provinces will be featured in the series which is directed toward attracting the Canadian people as well as American travelers.

New York Central Issues Farming Booklet

The advantages of farming in the fertile region served by the New York Central is described in a new booklet entitled "Finding a Farm," published and now being distributed by the New York Central's agricultural relations department. Addressed primarily to the many people, e. g., war veterans and displaced factory workers, who are attracted to the business of farming as a future profession, the booklet extends practical advice from the knowledge gained during many years of cooperation by the Central's agricultural relations department with farmers in solving their problems. It is 44 pages in length and copiously illustrated by photographs and maps.

Col. Ragsdale Urges Faster, More Frequent Rail Service

The railroads of America are planning to provide vastly improved passenger service after the war and they will do so profitably by running their trains "faster and oftener," Col. E. J. W. Ragsdale, chief engineer of the railway division of the Edward G. Budd Manufacturing Company, told members of the Canadian Railway Club at the Mount Royal Hotel, Montreal, P. Q., on February 11.

Using as his theme, "There Is Economy in Speed," Col. Ragsdale pointed out that the railroads of Canada, the United States and Mexico, in this way will substantially spread their fixed costs and earn a much greater return on their 5½ billion dollar investment in rights-of-way. "Rails and roadbeds don't wear out—they weather out," Col. Ragsdale declared, "and the answer is a combination of less idle time and much faster running."

Col. Ragsdale also described the Budd Company's new developments in post-war sleeping car accommodations and asserted the average railroad's sleeper requirements could be taken care of with only two all-room car types, each incorporating the new designs. All post-war Budd sleeping cars

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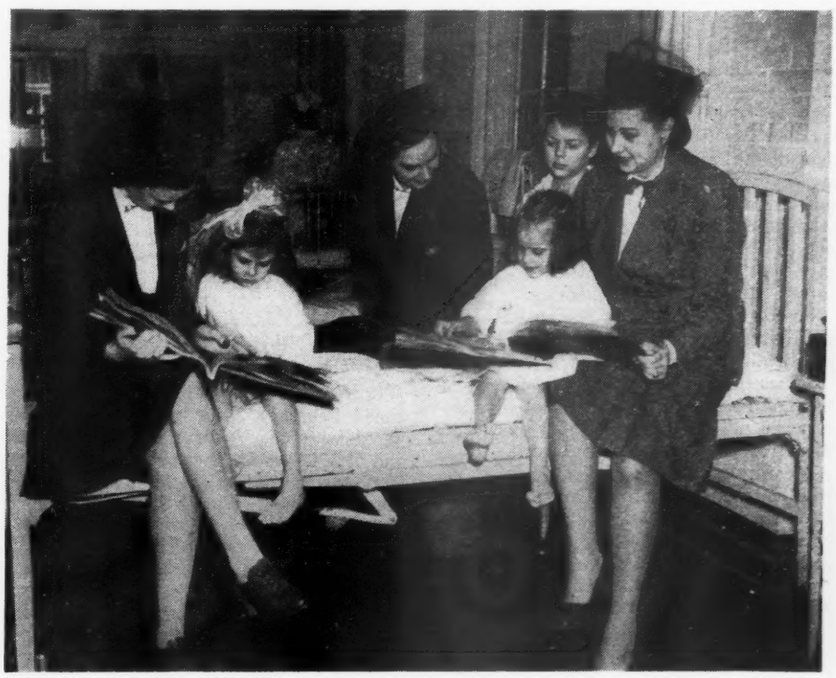


Southern Hostesses' Spare-Time Hobby Entertains Ailing Kids

Three hostesses on the Southern's passenger trains have made a hobby of pasting up in scrapbooks amusing pictures which they clip from greeting cards. They recently presented these scrapbooks to a Washington hospital for the entertainment of convalescing youngsters—and the S. R. passenger department tipped off the public relations department, with the result that the above picture was printed in the Washington Post.

The Southern's public relations department cites this as an instance of publicity-alertness by other departments, along the lines suggested in the communication by Douglass Welch, published in the *Railway Age* of January 26, page 242.

will be all-room types, he said, adding, "we have believed for some time the upper and lower berth arrangement was just as out-of-date as assigning a couple of strangers to the same hotel room."

The new Budd sleeping car rooms, he said, include the "budgette" and the "cabin," which are individual accommodations, complete with all necessary comfort facilities, including toilet and lavatory. Thirty-two budgette rooms can be fitted into a standard 85-ft. sleeper and provision has been made so that adjoining rooms may be opened to form a snug apartment. Cabins are more commodious rooms, 22 to a car.

In addition, the Budd facilities include a double bedroom and a "master room." The double bedroom accommodates two persons and includes a closed compartment which houses a shower, toilet and lavatory. Two of these bedrooms can be opened up to form a master room, which sleeps four, seats six, and offers two of the shower compartments and plenty of storage space for wraps and luggage. Col. Ragsdale said one car type of all budgette rooms and another combining double bedrooms and cabins would probably take care of the requirements of most railroads.

Four Held in T. P. & W. Fight As Two Pickets Are Killed

The shooting and killing of two pickets and the wounding of three others by armed guards when they attempted to interfere with the movement of a freight train of the strikebound Toledo, Peoria & Western train at Gridley, Ill., (*Railway Age* of February 9) has resulted in the holding of the four guards on murder charges and the entrance into the case of the Federal Bureau of Investigation. The F. B. I. action was requested by Preston Kimball, assistant United States attorney at Peoria, Ill., the headquarters of the T. P. & W., who has asked the F. B. I. to determine whether (1) George P. McNear, Jr., president of the railroad, had violated a federal law by importing strikebreakers "for the purpose of interfering by force or threat with peaceful picketing," and (2) whether one of the four guards held violated military laws by wearing a Marine Corps uniform at the time of the shooting.

At the same time it is reported that W. C. Keiser, international vice-president of the Brotherhood of Locomotive Firemen & Enginemen, has temporarily delayed but has not abandoned a demand that Mr. McNear be indicted by a grand jury on charges of murder as a result of the battle.

Meanwhile, officers of the T. P. & W., who had wired Governor Green of Illinois, following the battle of pickets and guards, asking for state militia guards for the railroad, were turned down when the governor denied the request in a telegram to Mr. McNear in which the chief state executive said in part:

"Indiscriminate gunplay is not the way to either settle a labor dispute or to protect property. The tragedy must be thoroughly investigated and any violation of the law punished."

Although Mr. McNear could not be reached for a statement, other officers of the railroad reported that the shooting did not begin until strikers, who had followed the five-car train from Peoria and had stopped several times to hurl rocks at it, attempted to rush the guards at Gridley when they were about to operate a switch. That the pickets were not entirely peaceful is suggested by the testimony of witnesses who told U. S. Assistant Attorney Kimball that (1) the strikers were seen placing a large quantity of glass bottles near the track as the train approached, and (2) that at least two of the pickets carried "long" guns and (3) an empty shoulder holster was found upon the body of one of the slain men.

Freight Car Loadings

Loadings of revenue freight for the week ended February 9 totaled 713,240 cars, the Association of American Railroads announced on February 14. This was a decrease of 9,895 cars or 1.4 per cent below the preceding week, a decrease of 42,592 cars or 5.6 per cent below the corresponding week last year and a decrease of 79,941 cars or 10.1 per cent below the comparable 1944 week.

Loading of revenue freight for the week ended February 2 totaled 723,135 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, February 2

District	1946	1945	1944
Eastern	141,333	131,431	157,276
Allegheny	129,240	146,597	177,314
Pocahontas	56,292	53,222	56,274
Southern	130,655	126,351	128,366
Northwestern	81,020	83,823	89,822
Central Western	123,748	126,231	124,611
Southwestern	60,847	72,001	72,051
Total Western Districts	265,615	282,055	286,484
Total All Roads	723,135	739,556	805,714
Commodities:			
Grain and grain products	54,420	41,776	55,270
Livestock	19,161	13,996	15,336
Coal	187,833	157,806	182,783
Coke	7,507	14,255	15,082
Forest Products	36,366	43,442	46,208
Ore	5,986	10,215	14,871
Merchandise l.c.l.	118,641	93,896	102,475
Miscellaneous	293,221	364,170	373,689
February 2	723,135	739,556	805,714
January 26	709,130	739,625	810,890
January 19	749,475	777,572	798,650
January 12	772,558	783,060	779,531
January 5	652,457	683,398	769,629
Cumulative Total, 5 weeks	3,606,755	3,743,211	3,964,414

In Canada.—Carloadings for the week ended February 2 totaled 64,593 as compared with 66,377 for the previous week and 65,531 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

Totals for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
February 2, 1946	64,593	33,597
February 3, 1945	65,531	32,966
Cumulative Totals for Canada:		
February 2, 1946	319,110	164,927
February 3, 1945	312,709	163,905

Hint Great Western Merger

The possibility that a merger may be effected between the Chicago Great Western, the Missouri-Kansas-Texas and the Chicago & Eastern Illinois loomed this week following a meeting at Chicago in which Patrick H. Joyce, president of the Great Western, announced that "something might be worked out in from one to three years." The conference was held in the office of Mr. Joyce and was attended by representatives of the Katy and the C. & E. I.

Mr. Joyce pointed out that the meeting was "merely an informal talk and nothing transpired," adding that negotiations for the merger might continue "for years." However, additional significance was given the proposed plan when it was recalled that Edward N. Claughton, Miami, Fla., one of the largest stockholders of the Katy, declared last week that he had acquired large common stock holdings in the C. & E. I., and the Great Western, and that he intended to work for a merger of the three roads.

Combined assets of the three railroads are approximately $440,000,000, and their combined trackage covers 5,500 miles in the Middle West and the Southwest.

Strike Threat on C. N. J.

E. T. Moore, general manager of the Central of New Jersey, on February 12 issued a statement declaring that Dennis A. Giles, general chairman of the Brotherhood of Railroad Trainmen on the Jersey Central, was "trying to precipitate an outlaw strike on the railroad in direct violation of the Railway Labor Act." Referring to a recent statement given some newspapers by Mr. Giles announcing that a date for a strike of C. N. J. would be set as soon as a strike poll of members of the B. of R. T. and the Brotherhood of Locomotive Engineers employed by the Jersey Central was completed, Mr. Moore said in part:

"Mr. Giles knows very well that such action is illegal, and he states it probably would be a 'runaway strike,' similar to the one on eastern railroads in 1920 which was repudiated by the national leaders of the railroad brotherhoods. Railroad workers gained absolutely nothing in the 1920 outlaw strike and suffered greatly because of it. It is a fact well known to railroad workers that participants in that outlaw strike lost all their seniority rights when they returned to work.

"We do not believe that those employees who remember the 1920 outlaw strike will want to become involved in another such walkout, nor do we believe that those employees who entered our service since 1920 will want to become a party to any illegal strike."

In answer to Mr. Giles' assertion that the strike action was being taken against the Jersey Central because of its refusal to take part in the national arbitration of the railroad brotherhoods' demands for the 30 per cent wage increase and because it had not agreed to a "standby agreement" pending the outcome of the national negotiations, Mr. Moore said:

"This declaration by Mr. Giles places him in a peculiar position. It was announced publicly more than a week ago that only two of the nation's 20 railroad brotherhoods had refused to submit their wage demands to national arbitration after attempts to settle the dispute in national labor-management conferences failed. The two unions which refused were Mr. Giles'

own Railroad Trainmen and the Locomotive Engineers.

"While there has been a breakdown in national negotiations on wage demands of the B. of R. T. and B. L. E., no such condition exists between the Jersey Central and the two brotherhoods for whom Mr. Giles claims to speak. The C. N. J. negotiations with the B. of R. T. and the B. L. E. are still in progress and we have not been informed by the brotherhoods that there is any breakdown or that they wish to submit the question of wages and working rule changes to the National Mediation Board, which in the event of a breakdown is the next step provided in the National Railway Labor Act."

Transportation Association Comments on N. I. T. L.

In the February bulletin to its membership, the Transportation Association of America reviews the National Industrial Traffic League's statement to Chairman Lea of the House interstate and foreign commerce committee in the inquiry into national transportation policy being conducted by that committee. The N. I. T. League was complimented for its recommendation for a single regulating agency for all forms of transportation and for its advocacy of a regime under which a carrier would be allowed to engage in more than one form of transportation.

The League was quoted as being in opposition to "subsidy payments to carriers" especially in the case of the air lines which it has said "reasonably can support charges to the users". However, the Transportation Association's Bulletin makes it clear that, in opposition to a recommendation by its committee on transportation policy, the League membership refused to support a user charge for waterways.

"Many members frankly opposed such a charge," the T. A. A. reveals, "on the ground that shippers would be foolish to advocate something that might mean higher costs for them—which inspired one member to move that the League then abandon its motto: 'Promoter of sound economical transportation'."

According to the Transportation Association, there have been indications that President Truman might transfer air transport control from the Civil Aeronautics Board to the I. C. C. without waiting for Congressional action. In the opinion of the Association, the President could do this under existing legislation.

On the subject of the principles which should govern railroad reorganizations, the executive committee of the Transportation Association at its January 16 meeting passed resolutions reading in part as follows:

The general public has the right to expect that the trustees operating transportation companies will use their best efforts to maintain standards of efficiency and economy which are recognized generally in private enterprise . . . . The purpose of the reorganization processes would be defeated if, in any case, the court should use its supervisory powers, directly or indirectly, to bring about the nomination of directors of its own choice, or to promote the particular interest of any individual or group . . . .

The successful management of any transportation agency is dependent on an alert and progressive board of directors and efficient administration by career transportation executives. Such top management will protect the public interest as well as that of investors and no action of the court should interfere with efforts to bring together such a combination, which will help to insure efficient operations and adequate public services."

Cartoon Advertising by B. & O.

The Baltimore & Ohio has prepared a display advertisement, being published in publications reaching the newspaper industry, from Don Herold's booklet, "A Fan Letter to B. & O. Employees About Their Courtesy" (reviewed in *Railway Age*, December 28, 1945, page 1013). The advertisement is illustrated by Mr. Herold's well-known drawings and the cartoonist compliments the B. & O. for being a "new fashioned railroad with old fashioned courtesy". He maintains in that courtesy, efficiency, and thoroughness must be practiced not only by the personnel but by everyone on the railroad; "You can't—in any business—have a front line of smilers and a back row of glums".

L. I. Traffic Club Elects

At a meeting held recently by the Long Island Traffic Club, Bernard J. McSweeney, general freight agent of the Central of New Jersey, was elected president. Other officers elected are: George Schifferdecker, assistant traffic manager, Western Electric Company, vice-president; and William Strohsal, Minneapolis & St. Louis, secretary-treasurer. R. C. Brugeon, traffic manager of the St. Regis Paper Company, was elected chairman of the executive committee, and John J. Connell, Lehigh Valley, chairman of the board.

Arbitration Panels Completed

Herbert B. Rudolph, Pierre, S. D., a judge of the supreme court of South Dakota, and Ernest M. Tipton, Jefferson City, Mo., a judge of the supreme court of Missouri, were named by the National Mediation Board, on February 11, as the neutral arbitrators to hear the wage case of the 15 non-operating railway labor unions. To hear the case of the three operating unions, the board selected Richard F. Mitchell, Ft. Dodge, Iowa, chief justice of the supreme court of Iowa, as the neutral arbitrator. The selection of these men completes the personnel of the two arbitration boards who will decide on the merits of the demands of 18 railway labor organizations for increases in wages.

Failure of the carrier and labor members of the arbitration boards to agree on the neutral members of the boards within five days from the date they held their first meeting required that the neutrals be selected by the National Mediation Board in accordance with the provisions of section seven of the Railway Labor Act, which section further provides that the decisions of the arbitration boards shall be binding on the parties. The other members of the non-operating board are, as reported in the *Railway Age* of February 9, Ralph Budd, Chicago, president of the Chicago, Burlington & Quincy, and J. Carter Fort, Washington, D. C., vice-president law department, Association of American Railroads, representing the carriers; and E. E. Milliman, Detroit, president of the Brotherhood of Maintenance of Way Employees, and Felix H. Knight, Kansas City, Mo., president of the Brotherhood of Railway Carmen of America, representing the organizations. The remaining members of the arbitration board which will hear the case of the operating employees are R. W. Brown, Philadelphia, Pa., president of the Reading, and Carl J. Goff, Cleveland, Ohio, assistant president of the Brotherhood of Locomotive Firemen and Enginemen. Under the terms of the arbitration agreement, these boards are to present their decisions within 35 days of the date of their first meetings, which are to be held Monday, February 18, in Chicago.

Club Meetings

The Western Railway Club will meet March 18 at the Hotel Sherman in Chicago at 6 p. m. B. H. Prater, chief engineer of the Union Pacific, will present a paper on "The Present and Future Engineering Problems Confronting the American Railroads."

The Toronto Railway Club has scheduled a meeting to be held at the Royal York hotel, Toronto, March 25 at 8 p. m. Dominion Foundries & Steel, Ltd., Hamilton, has prepared a presentation entitled "From War to Peace" which will be illustrated.

A meeting of the Indianapolis Car Inspection Association will be held March 4 in Room 403, Union Station, Indianapolis, at 7 p. m. The meeting is for the purpose of a discussion of the new A. A. R. rules.

At the meeting of the New York Railroad Club on February 21 (33 West 39th street, 8 p. m.) an illustrated discussion of tropical transportation and steamship operation, correlated with the international aspect of the banana industry, will be presented by Edmund S. Whitman, manager of advertising and public relations of the United Fruit Company.

C. & O.—N. K. P. Renew Plea for Coast-to-Coast Trains

In metropolitan newspaper advertising early this week, the Chesapeake & Ohio and Nickel Plate once again urged that coast-to-coast passenger trains be operated without requiring changes of trains at St. Louis or Chicago.

The failure of trains to operate through these two terminals, these railways contend, "is bad enough for the transcontinental traveler," but "it is worse for the passenger who starts his journey only a few miles either side of Chicago or St. Louis, and still must change trains."

The two roads renew their offer to join with "any combination of railroads" to provide through service not necessitating changing at Chicago or St. Louis. The advertisement is headed "Are Chicago and St. Louis part of America or not? Why should through rail travelers be held up at their frontiers?"

With the Government Agencies

I. C. C. Money Bill Reported to Senate

It would restore $130,000 of $244,000 cut made by the House

The Senate appropriations committee's version of the Independent Offices Appropriation Bill for the fiscal year ending June 30, 1947, recommends Interstate Commerce Commission appropriations totaling $9,676,000, or $130,000 more than the measure carried when it was passed recently by the House. The Senate committee's version of the bill, H. R. 5201, was reported favorably to the Senate last week.

In passing the bill, the House approved I. C. C. appropriations totaling $9,546,000 which had been recommended by its committee on appropriations. As noted in the *Railway Age* of January 26, page 250, this represented a cut of $244,000 from the amount recommended by the Bureau of the Budget. The largest cut made by the House reduced the I. C. C.'s "general expenses" appropriation by $230,000—from the $8,230,000 proposed by the Bureau of the Budget to $8,000,000. The remaining $14,000 reduction was the net result of cuts of $18,000 and $3,000, respectively, in amounts allowed for printing and binding and for the cost of handling penalty mail, and an increase of $7,000 over the budget estimate in the appropriation for locomotive inspection work.

Purpose of Increase Defined—The record of the Senate appropriations committee's hearings on the bill reveals that the I. C. C. there made no effort to restore the House cuts in the amounts allowed for printing and binding and for the cost of handling penalty mail. Its whole argument was in support of its proposal that the $230,000 reduction in the "general expenses" item should be restored lest a shortage of funds "seriously impede the work of the commission and particularly some new activities," such as the way-bill study under way in the Bureau of Transport Economics and Statistics. As noted above, the Senate committee recommended that $130,000 be restored; but it stipulated in its report that $100,000 of the increase "is for the Bureau of Service in connection with car-service supply and control work."

Discussing the way-bill study at the hearings, Commissioner Aitchison said the commission considered it "highly important" to have the information which the study will produce in connection with "the readjustment of rates which we have under way, growing out of the late decision in Docket Nos. 28300 and 28310, the class-rate case and the uniform-classification case." Mr. Aitchison went on to say that the study "has met with hearty approval on the part of the carriers, as well as on the part of the shippers who have been participating in those cases, who regard it as highly important." He added that the commission will doubtless find it necessary to carry its traffic studies further into the motor carrier field, "because the motor carriers are very restive under the present situation and some are in great financial difficulties."

Way-Bill Study—Further discussion of the way-bill study came when Commissioner Splawn outlined the work of the Bureau of Transport Economics and Statistics. He said that the commission had been "severely criticized through the government" for not asking more money for the study, because "various departments insist that we should take more samples." Also, Mr. Splawn said, he has in his files "letters from two senators, inquiring if we have asked for enough money, and if we are planning this way-bill study on a sufficiently extensive scale."

Speaking as one who has followed I. C. C. statistical work "probably longer than any man in this room, except Commissioner Aitchison," Senator Reed, Republican of Kansas, told Mr. Splawn that "it seems to me that the statistical work you are doing now is more than is necessary." The commissioner conceded that there are "possibly some reports that were very important 20, 30 years ago, that might not be regarded as so important now." Mr. Splawn did not want to identify such report, however, because if he named them he would "immediately get through the mail a lot of protests." At the same time he did say that the commission would be willing to confer "with you and anyone else who is interested and go over this list of reports that we require of the carriers with a view to streamlining and bringing them down to what is useful currently, and with a view to cutting out anything that is obsolete."

Later on, Mr. Splawn told Chairman McKellar that a report on this matter would be prepared for the committee next year. And Senator Reed said that, although he thinks the commission "or somebody down there" has gone "statistics crazy," he nevertheless regards the commission as "one of the best managed, most economically and sensibly managed, of all the governmental bodies." Chairman McKellar agreed, saying that he did not think "anyone doubts that."

Too Much Figuring?—Commissioner Mahaffie recalled that in the early 'Twenties, when he was director of the Bureau of Finance, the railroads "had a great deal of grief about being required to do too much accounting." A committee of railroad and government representatives, with Mr. Mahaffie as chairman, was appointed to look into the matter; and, as Mr. Mahaffie put it, "we found that the railroads themselves needed and kept very much more voluminous accounts than we required. The thing

(*Continued on page 380*)

Revamp Plans Should Reflect Present Trend

So says Senate committee asking authority to probe rail reorganizations

Improved conditions, which have come since enactment of section 77 of the Bankruptcy Act in 1933, "require basic changes in the part government plays in the recasting of the finances of railroads, as well as changes in the spirit and viewpoint of government authorities when they deal with this subject," according to the Senate interstate commerce committee's report recommending favorable Senate action on the Wheeler-Reed resolution calling for an investigation of the operation and handling of insolvent railroads by trustees and receivers. The resolution—Senate Resolution 192—was introduced last year by Chairman Wheeler of the committee on interstate commerce for himself and Senator Reed, Republican of Kansas; the investigation it calls for would be made by that committee or a subcommittee thereof.

As noted in the *Railway Age* of February 9, page 335, the resolution would authorize an expenditure of $5,000, and thus it must go through the committee on audit and control before coming before the Senate. Anticipating favorable action, Chairman Wheeler has stated that the initial hearings would probably be held at Chicago on the Chicago, Milwaukee, St. Paul & Pacific and Chicago, Rock Island & Pacific reorganizations; and that other sessions would perhaps be held at St. Louis, Mo.

94-Page Report—The interstate commerce committee's report on the resolution is a 94-page document which reviews in comprehensive fashion the finances of railroads undergoing reorganization and then draws up a list of "changes appropriate in the administration of railroads in the hands of the courts." Results under section 77 and receivership proceedings are found to be generally unsatisfactory, while much is said in favor of voluntary reorganization procedures such as those formerly available under the Chandler and McLaughlin acts and proposed to be restored by the pending S. 1253.

The changes in administration which the report calls for are "the discharge from trusteeship or receivership of those companies which are able to pay their overdue interest, without court reorganization of their financial structures"; the taking advantage of current money-market conditions to reduce interest rates, even though the roads be in the hands of the courts; the use of surplus cash to reduce debt; recognition of the "improved position of

junior securities"; and recognition of the fact that the administration of reoganization "can be geared to changed conditions—and the changes in the affairs of companies still in the hands of the courts today present a very different reorganization problem from that in the 1930's."

"The opportunity to bring about reductions in interest rates is something new in their affairs; it is a substitute for drastic reorganization," the report went on. "The possession of large funds to reduce debt, and thus to eliminate interest charges on the debt retired, and to provide the basis for still further reduction of the interest rates on the balance of the debt, is of course of inestimable importance.

Business Approach Required—"The reduction in debt and interest charges, the record of high earnings, the easing of financial difficulties, the conversion of what seemed in the 1930's to be a mountainous task into one that is now relatively simple of adjustment between creditors and stockholders—all these indicate the desirability of substituting a business approach for the governmental approach, and the methods of business adjustment for the methods of forecasting. This practical method, in place of the speculative approach, will result in basic financial reorganizations of large magnitude. Just as at the time of the enactment of section 77, so when the pattern of reorganization method and reorganization plan was set in the 1930's by government agencies and security holders, present-day money-market conditions, interest rates, and cash positions of the companies had not been foreseen."

The report next asserted that trustees "should so order the affairs of these roads that they may be reorganized on a business basis, as fully as if the managements had been in control of their properties, without the custody of any court or trustee." Meanwhile it had said that "above all" means must be devised "to bridge the chasm between commission and courts." It explained that these agencies now operate in separate compartments, with the courts and trustees in a position where they can "advance or defeat the use by the companies of their present unparalleled opportunities to solve their remaining financial difficulties," while the commission "is put in a position where, if it has to prepare reorganization plans, it is dealing with a situation which disregards present-day realities." Moreover, it is pointed out that "nothing in the statute forbids court or trustee action to alleviate or improve the financial affairs of the railroads, even to the point of enabling solvent railroads to secure discharge from court without any need for the commission's operation of the reorganization machinery created by section 77."

Meanwhile the report had got under way with a statement saying that the investigation was proposed "as a result of increasing dissatisfaction over a period of years by members of Congress and by a large number of citizens with the operation of reoganization procedures under section 77 of the Bankruptcy Act and sharp criticisms of the forfeitures of investments under that section and of the economic and financial repercussions of the procedures and proceedings thereunder. Similar criticism is made of equity receiverships."

I. C. C. Supplied Data—Responding to a request from Chairman Wheeler, the I. C. C. supplied financial and statistical material bearing on the subject; and the report is based largely on this material and various other information which was a matter of record.

The report calls itself "the most complete and detailed study of the subject matter to date." Before getting into more specific observations, it sets forth a general finding as follows:

"The general condition of the railroad industry, both physical and financial, is one of well-being. The managements and employees of the railroads are to be congratulated on the industry's outstanding performance of recent years and on their foresightedness in placing the railroads in an excellent position to render full service to the public in ensuing years."

Then follows 17 pages of discussion with respect to the physical condition of the railroads, the general conclusion in that connection being: "All in all, it may be said that the railroads have come out of the material and equipment situation of the war years fairly well and that they now find themselves at the beginning of the peacetime period with a transportation plant that has demonstrated its ability to serve the needs of the country to a far greater extent than the country had required at any time prior to World War II."

Debt Reductions—Proceeding next to a consideration of the reduction of railroad debt and interest charges, the committee reported in detail on the great progress made in that connection by railroads which are not in the hands of the courts. Also, it is conceded that the courts and receivers and trustees have made substantial progress along the same lines with respect to the interest and debt of railroads in their hands.

"However, in a number of these railroads this process could have been carried much further," the report said. "A number of receivers and trustees have been inclined to hold cash and cash equivalents in far larger amounts than were needed or could be justified by sound business practice. It is necessary to convert more rapidly from the theory and practice in insolvency proceedings of withholding payment of interest and retirement of bonds, to the sound business practice of paying interest and retiring principal when funds are available for those purposes. It is now clear that the conversion to the normal process of paying interest, past and current, can be carried much further than has been the case up to the present."

From the data supplied by the I. C. C., the report selects figures showing the large earnings, reported in recent years by railroads undergoing reorganization, that would accrue to the stock being wiped out under the reorganization plans. And it is suggested that the least such earnings warrant is a reduction in rate of interest paid by such roads. In that connection mention is made of the Reconstruction Finance Corporation's plan of according interest-rate reductions "made appropriate by financial conditions." It is pointed out, however, that the rates on R. F. C. loans have not usually gone below 4 per cent; and later on comes a suggestion that the government, which pays only 2 to 2½ per cent for long-term money, might well find it appropriate to charge borrowers "simply the rate of interest which the government itself pays, plus a sufficient amount to take care of administrative expenses and to set up reserves for any losses." Under such a policy, the R. F. C. "would be charging the railroads less than 4 per cent," the report added.

Would Pay R. F. C. Loans—With respect to R. F. C. loans generally, the committee believes that the railroads should pay them off as soon as possible. The amount outstanding as of June 30, 1945, was put at about $125,000,000. "Considerable confusion and possible criticism," the report said, "can be avoided if the government ceases to remain a banking creditor of the railroads after they are in a position to pay the loans made by the government. So long as the government remains a banking creditor of railroad companies, it tends to become a partner of the private owners and to participate as such in the management as well as in the reorganization of the railroad companies. This would be sufficiently debatable even if the government were an equal or majority partner, but it is in fact a minority partner. In the absence of any congressional pronouncement in favor of government ownership of railroads or of government partnership in the ownership of railroads, it would seem desirable to bring the possibility of such a state of affairs to an end as soon as the finances of the borrowing railroads permit."

Also, it is pointed out that the R. F. C. has made a profit of some $5,000,000 from its railroad loan operations, which have involved R. F. C. support of reorganization plans under which equity holders were wiped out. A compilation made by the I. C. C. at the request of the committee shows that the par amount of stocks and bonds wiped out in reorganizations completed, and to be wiped out in plans approved by the commission, aggregated $2½ billion.

Earnings figures set forth in the report are interpreted by the committee as showing that a number of roads in the hands of the courts "have earned during the past few years profits so large that highly solvent railroads would have been proud to report such earnings in highly prosperous years." These earnings figures are compared with those of roads which effected voluntary reorganizations under the Chandler and McLaughlin acts, the comparison being favorable to the roads in the hands of the courts. The data, the report added, "dispose conclusively" of the view that the roads under section 77 procedure need that procedure because they are weaker than the roads which had the benefit of the "milder procedures" of Chapter XV (the Chandler and McLaughlin acts). Previously the report had pointed out that the major systems in section 77 proceedings went into the hands of the courts in 1933 and 1935, whereas the Chandler Act was not enacted until 1939, after which "the major roads in need of statutory aid resorted to its procedure."

Dilemma Confronts I. C. C.—Coming to its discussion of the administration of section 77 proceedings by the I. C. C., the report said that the commission's duty

to fix new capitalizations based on estimated future earnings confronted it with "a dilemma which makes clear the injustice to any agency charged with such a duty." On the one hand, there was the inclination "to the conservative, if not the ultraconservative side," while, on the other hand, there was "much to be said" for the point of view of investors who urged that their property should not be foreclosed. Difficulties of the forecasting involved are set forth in quotations from commission reports; and mention is made of the fact that like difficulties were encountered "in other responsible quarters" where similar forecasaing was attempted.

On the question of changes in conditions subsequent to the commission's making of an appraisal of value, the report said that doubt has been expressed whether the commission has authority under the statute to recall a plan of reorganization from the courts, after it has been certified to them by the commission. Doubt has even been expressed whether the commission may make representations to the district court to which a plan has been sent, stating that changed conditions require modification of the plan.

"The commission," the report went on, "has resolved those doubts against the exercise of such power by it, and, deeming its authority strictly limited in this respect, has not made necessary revisions of plans, no matter how imperatively required in the interest of justice, unless and until the district courts have themselves found the plans to be unfair or unsound or have for any other reason returned them to the commission."

All in all, as indicated above, the committee believes that better results would come from voluntary reorganization procedures along the lines of the former Chandler and McLaughlin acts, and as proposed in S. 1253. And there are indications in the report that the committee looks with favor on the idea of making the voluntary procedures available not only to roads endeavoring to avoid section 77 and receivership proceedings, but also to roads already involved in such proceedings.

Forwarder Tariff Changes Put Off to March 16

By Special Permission No. 27983 of the Interstate Commerce Commission, issued on petition on behalf of freight forwarders subject to part IV of the Interstate Commerce Act, the forwarders and their tariff publishing agents on one day's notice are "authorized to provide for the extension of expiration dates, postponement of cancellations, and other collateral changes necessary" to continue joint forwarder-motor rates in effect from February 15 to March 15, pending further action in Congress on H. R. 2746.

This bill, passed by the House last week, as noted in *Railway Age* of February 9, page 336, would permit continuance of the forwarder-truck joint rates until the commission determines a permanent policy with respect to forwarder-truck rate relations. The Senate interstate commerce committee has held hearings on it, but the forwarders petitioned for the blanket special permission which the commission has ordered when it became somewhat doubtful whether enactment of the statute would be possible before the February 16 expiration of the joint arrangements, the termination of which was originally required when Part IV of the act was passed, 18 months then being provided for compliance. That statutory time limitation has since been extended by Congress, the last date so set being February 16, as reported in *Railway Age* of May 26, 1945, page 950.

Short Lines to File Formal Complaint on Per Diem

The American Short Line Railroad Association has been informed that the Interstate Commerce Commission has denied its petition for an investigation on the commission's own motion of the reasonableness of the charges for the use of freight cars, such denial being without prejudice to the filing of a formal complaint by the short lines. It was indicated that such complaint will be made.

As noted in *Railway Age* of January 20, 1945, page 206, the petition was filed after the Association of American Railroads had indicated its intention of increasing the freight car per diem rate from $1.00 to $1.15. The increase was effective February 1, 1945.

Kentucky House Passes Two Anti-Railroad Bills

Two bills which would add to the burdens now carried by railroads in Kentucky were passed recently by the House of Representatives of that commonwealth. One is a truck bill which increases the legal maximum load from 18,000 to 42,000 lbs., and the other, known as the "full crew" measure, requires the railroads in that state to employ a crew of six men on freight trains of 70 or more cars, and five men on passenger trains of five or more cars. Under the present law the trains may operate with crews of five and four men, respectively.

Edwin R. Denny, Republican floor leader, opposed the "full crew" bill as being an "excessive crew" measure. He explained that, in addition to costing the railroads of Kentucky more than $2,000,000 annually, the measure as proposed would pave the way for similar legislation on other businesses. Both bills were opposed by the railroads, and the truck weight bill was also opposed by railway employees.

O. D. T. Plans "Drastic" Action on Export Grain

Colonel J. Monroe Johnson, director of the Office of Defense Transportation, has warned the grain industry that it may expect a series of "rather drastic" orders, designed to assure an adequate supply of equipment and prompt transportation of the tremendous export wheat movement referred to by President Truman on February 6, in a statement in which he requested preference in transportation to meet this country's commitment under the program for provisioning certain foreign countries.

Admitting that the present supply of cars suitable for grain loading is not adequate to meet immediately all needs in all sections of the country, Col. Johnson stated that the real reason the grain is not at this time in export position is that shippers have elected to use the cars available for grain loading to fill domestic needs, instead of for export grain, and is not, "as has been incorrectly stated," inadequate transportation facilities.

The record indicates that the loadings of grain and grain products during January amounted to 207,158 cars as compared with 176,033 in January, 1945, 226,844 in 1944, 196,909 in 1943 and 176,409 in 1942—approximately 1,000 cars a day more than was loaded during the same period in 1942.

I. C. C. Disapproves Proposed Rule 34 Change

The Interstate Commerce Commission has disapproved a railroad proposal to change section 2(a) of Rule 34 of the Consolidated Freight Classification to provide that if a carrier is unable to furnish a closed car of the length ordered and furnishes a longer car, the minimum weight shall be that for the car ordered, "provided shipment could have been loaded in closed car of length ordered." At present the section provides that the minimum weight shall be that fixed for the car ordered "except that when loading capacity of car is used, minimum weight shall be that fixed for car furnished."

The shortened procedure was followed in disposing of the proceeding—I. & S. Docket No. 5347. The report by Commissioner Alldredge ordered the suspended schedules canceled and the proceeding discontinued. Mr. Alldredge pointed out that the provisions sought to be amended "are presently inoperative under Service Order No. 68."

National Parks Expect Crowds

Pointing out that travel to the national parks and monuments "seems likely to establish new high records" during the next season, the Department of the Interior has issued a statement explaining that, while operators of hotels, lodges, cabins, dining places, transportation, and other park facilities are making all possible preparations to rehabilitate properties to care for the expected volume of business, their success will depend on the availability of labor, materials and equipment.

In some instances facilities have so deteriorated during the war years that nothing short of major reconditioning is required, the statement added, and it was indicated that some delay might be experienced in opening some of the facilities in Glacier, Mount Rainier, and Yosemite National Parks for this reason, although all accommodations not so affected will be in operation.

Transportation Corps Reorganized

The Army's Transportation Corps—with the return of many of its staff to civilian life (which will result in an eventual peacetime strength of about 55,000, including both the military and civilians)—has announced a reorganization to meet its new dimensions. Under the new set-up, which is explained in the current issue of the monthly magazine of the Army Transportation Association, the old operating divi-

sions (with new names) have been placed directly under the Director of Operations, O. C. T. The Rail Division has been renamed the Military Railway Service; the Water Division, the Water Transport Service; and the Highway Division, the Highway Transport Service. The Traffic Control Division has been replaced by the Commercial Traffic Service, which reports to the Director of Operations in the same manner as the operating services.

Also under the Director of Operations is Movements Control, which takes over some of the functions of the Movements Division, while others pass to the passenger branch of the Water Transport Service. The Planning Division, with broadened functions, now reports to the Chief of Transportation rather than to the Director of Operations. Training, personnel, and supply remain substantially the same; but the administrative, legal, fiscal, and intelligence and security divisions have been grouped as "executive services" under the executive officer.

December Accident Statistics

The Interstate Commerce Commission on February 12 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for December 1945, and last year's 12 months. The compilation, which is subject to revision, follows:

Item	Month of December		12 months ended with December	
	1945	1944	1945	1944
Number of train accidents*	1,609	1,521	16,921	16,258
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	104	99	1,547	1,491
Injured	57	76	1,173	1,147
Passengers on trains:				
(a) In train accidents*				
Killed	6	43	65	181
Injured	301	186	1,962	1,870
(b) In train-service accidents				
Killed	7	4	69	58
Injured	244	238	2,765	2,828
Travelers not on trains:				
Killed	...	3	11	12
Injured	127	123	1,112	1,065
Employees on duty:				
Killed	103	104	898	978
Injured	4,313	4,550	47,261	47,330
All other nontrespassers:**				
Killed	275	255	2,121	2,061
Injured	941	857	7,196	6,987
Total — All classes of persons:				
Killed	495	508	4,711	4,781
Injured	5,983	6,030	61,469	61,227

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than $150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

Persons:				
Killed	258	235	1,910	1,840
Injured	636	590	4,432	4,216

I. C. C. Service Orders

By Service Order No. 450, revised, effective February 12 through March 10, unless otherwise provided, the Interstate Commerce Commission has prohibited railroads serving points in Washington, in Montana west of and including Paradise and Troy, and in Oregon and Idaho, except points on the Utah Idaho Central and on the Union Pacific east of Huntington, Ore., from supplying box cars for loading grain or grain products except under permit from the designated I. C. C. agent or written certificate of the shipper that the car is to be shipped to one of various Oregon and Washington ports named in the order, or to specified official inspection points for inspection and diversion to those ports.

Except as thus provided reconversion or reconsignment of grain and products shipped under the restrictions of the order are prohibited. The order was issued, it was indicated, in view of a shortage of box cars for the export grain movement, and in line with the instructions of the President to various government agencies to give specific preference to the movement of wheat and other essential foods to the ports for shipment to foreign countries where urgent needs for foodstuffs exist.

Through amendments effective February 13, various service orders intended to bring about more intensive utilization of available refrigerator cars have been modified to expire April 15. The orders affected are Fourth Revised No. 180, which establishes penalty demurrage charges for refrigerator cars; No. 394, limiting free time on such cars; No. 396, providing restrictions on the reconsignment of perishables, and No. 436, requiring prompt movement of empty refrigerator cars from point of unloading.

As a result of carrier disability due to flood conditions, the Canton & Carthage has been directed by Service Order No. 451 to forward by the most available route traffic routed over its line from Koch, Miss., to Canton. The order was effective February 11, to expire February 18 unless otherwise directed.

Drops Proposed Appropriation for Florida Canal

Before passing the War Department Civil Functions Appropriation Bill for the fiscal year ending June 30, 1947, on February 7, the House adopted an amendment cutting the appropriation for rivers and harbors work from $112,883,250 to $97,883,250, thereby eliminating the $15,000,000 which the Army engineers planned to spend on the proposed Florida Barge Canal. As noted in the *Railway Age* of February 9, page 334, the $15,000,000 expenditure on the canal was contemplated by the committee on appropriations when it reported the bill, H. R. 5400, to the House.

It was eliminated on the floor through an amendment proposed by Representative Engel, Republican of Michigan, who had assailed the project at committee hearings on the bill. Meanwhile, Representative Hendricks, Democrat of Florida, who had opposed Mr. Engel's point of view at the hearings, made an unsuccessful effort to have the Engel amendment defeated. At one stage of the debate Mr. Hendricks proposed a substitute amendment (which was voted down) that would have reduced the total rivers and harbors appropriation by only $8,000,000, thus leaving $7,000,000 to be allocated for work on the canal.

On February 8, the House acted to remove wartime restrictions on rivers and harbors work. It passed Senate Joint Resolution 105, thereby completing Congressional action on that measure which strikes from the latest rivers and harbors authorizations bill (the act of March 2, 1945) the language stipulating that none of the authorized projects should be appropriated for or constructed until six months after the termination of the war unless such project was recommended by a defense agency or the President as necessary in the interest of national defense or security.

H. & M. Train Hit Drawbridge Despite Safety Devices

Failure to obey interlocking signal indications was the cause of an accident December 17, 1945, at the Passaic river drawbridge between Harrison, N. J., and Newark on the main line of the Pennsylvania, in which a Hudson & Manhattan multiple-unit electric train struck the lift span of the bridge, resulting in the death of one passenger and two employees and the injury of 79 passengers and 3 employees, according to the report of an investigation by the Interstate Commerce Commission under the supervision of Commissioner Patterson.

The 7-car train was running westbound on the westward track of a double-track line in interlocking territory where trains are operated by signal indications, the electro-pneumatic interlocking being provided with approach and indication locking. The train passed signals located 2,371 ft. and 350 ft., respectively, east of the point of the accident, the latter signal being equipped also with a smash board. The controlling circuits of the interlocking are so arranged that the signal nearest the bridge and the smash board must display stop before the lift span can be opened, while the lift span must be locked in closed position before the levers operating the signal and the smash board can be set for a proceed indication. If the block is unoccupied, the signal 2,371 ft. east of the bridge displays slow approach (proceed-prepared-to-stop-at-next-signal) when the signal near the bridge displays stop. Tests after the accident indicated that all the apparatus involved was functioning properly.

At 6:23 p. m.—four minutes before the accident—the interlocking operator set the control levers for the lift span to rise. At this time the illuminated track diagram in the tower indicated no train in the block between the two signals involved; the more distant signal displayed slow approach; the closer signal displayed stop; and the smash board was in stop position. At 6:27 p. m. the lift span was in downward motion, with its end about 11 ft. above locking position, facing toward westbound trains, when it was struck by the multiple-unit train.

This train had passed the slow approach signal, stopped at the station at Harrison, and then passed the stop signal and the smash board, striking the end of the lift span while moving about 12 m. p. h. The train was fitted with electro-pneumatic and automatic air brakes and with a "dead man" device on the controller handle, by which brakes are applied in emergency when pressure on it is released, except when a full service brake application has been made. A manual emergency brake application requires movement of the brake valve to the extreme right of the quadrant.

As the motorman was "killed in the accident," it could not be determined why he did not stop in compliance with the stop aspect displayed by the signal 350 ft. east of the bridge. The train proceeded beyond it until an emergency brake application was made about 2 seconds before the collision occurred. Afterward it was found that the controller was closed and the brake valve in emergency position. A test indicated that an emergency brake application made at the smash board would stop a train moving 17 m. p. h. in 95 ft., or 255 ft. short of the end of the lift span. Aspects of the signal which displayed stop could be seen through a distance of about 2,000 ft. to the east.

The front control compartment and the rear end of the first car and the front end of the second car were badly damaged in the collision with the end of the lift span. The front truck of the second car and one wheel of the front truck of the third car were derailed.

I. C. C. Money Bill Reported to Senate

(*Continued from page 376*)

blew up, because they finally, after we had gone over this with them, did not want to continue the discussion."

The effect of the appropriation cut made by the House on the work of the Bureau of Service was discussed by Commissioner Johnson, who is also director of the Office of Defense Transportation. It is Colonel Johnson's idea that this bureau, which went into the war with 16 service agents, will need not less than 41 during the next few years.

"Car shortages today," the colonel said, "are in effect and progressively the worst we have had during this war." This situation, he went on, has been caused by many factors, including the increased turn-around time resulting from the five-day week, the number of cars tied up by strikes, and the acute shortage of refrigerator cars. In the latter connection, the O. D. T. director told the committee that the Secretary of State recently asked him to send a number of additional refrigerator cars per day to Mexico. "And," Colonel Johnson went on, "I said, 'We haven't got them. If anybody's vegetables are going to spoil and be lost, it will not be ours.' And they can get no more cars." In his further discussion of O. D. T. and I. C. C. car service work, Colonel Johnson noted the cooperation of the Association of American Railroads, which he called "one of our greatest allies."

Car-Service Control? — Meanwhile, the O. D. T. director will have funds to carry on what he regards as necessary car-service activities during the remainder of the current fiscal year ending June 30, 1946, if Congress acts favorably on the deficiency appropriation of $159,000 included in the Urgent Deficiency Appropriation Bill for 1946, which was reported favorably from the House committee on appropriations this week. This is the $159,000 requested recently by President Truman, as noted in the *Railway Age* of February 9, page 337.

Colonel Johnson's testimony at House appropriations committee hearings on the matter was along the lines of the presentation he made before the Senate committee on the I. C. C.'s fiscal 1947 appropriation for car service work, as noted above. At the House hearing, however, the O. D. T. director revealed that the recently-instituted I. C. C. inquiry into mileage charges on refrigerator cars (see *Railway Age* of February 9, page 335) was prompted by the shortage, and that the inquiry will determine "whether or not we will require refrigerator cars paid for to the owners on a per diem basis so that there will be a financial interest for the railroad to make it move." Colonel Johnson added: "It costs the railroad nothing for a refrigerator car to sit in Florida waiting on a load because they [car owners] get paid by the mile only. That has never been contemplated before. The I. C. C. will hold hearings on the 20th to put a substantial portion of the remuneration in the hands of the owner of the refrigerator car, on a per diem basis."

The general condition of railroad equipment, "except motive power," from a safety standpoint is "fairly satisfactory," the O. D. T. director told the committee. "From the standpoint of the shipper it is deplorable," he added. "I dislike to say this, but I guarantee you there are 40,000 box cars that ought to be off the roads now that are hauling freight. In fact, some have been put back in service that were on the sidetracks to be scrapped. Regarding the 'in bad order,' the number of cars in the shops for repair, the refrigerator cars alone went from 4,000 to 8,000 in 60 days. We cannot get the materials and we cannot get the men and we are stymied everywhere. However, that is nothing new. I have lived in it for four years, and it does not terrify me at all. We will get something done about it."

Army Wharfage Allowance Case Reopened by I. C. C.

Upon petition of railroads serving North Atlantic ports and of southern roads, the Interstate Commerce Commission has reopened for reargument and reconsideration its No. 29117 proceedings, wherein Division 2 ruled last year (reported in *Railway Age* of August 25, 1945, page 348) that railroads handling Army export freight through Norfolk, Va., either must provide wharfage and handling services or make the Army an allowance therefor. Reparations of four cents per 100 lb. were awarded the government on freight handled subsequent to the Army's assuming operation of the Norfolk piers in 1942.

In view of the reopening of the case, the effective date of the order accompanying that decision has been postponed until further order of the commission.

Traffic Flow, Cost and Rate Study of Midwest Truckers

What is termed the "most comprehensive rate and cost analysis which has ever been made in the motor carrier field" has been made available as a supplemental report of the federal manager of motor carrier operations for the Office of Defense Transportation, prepared with the cooperation of various motor carriers in Western Trunk Line territory and the cost section of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

This "Traffic Flow, Cost and Rate Study," a 293-page document, is composed largely of a tabulation of the material obtained by waybill studies and cost data collected by the bureau staff. Essentially it is the result of an analysis of operations on February 14, 1945, of 95 carriers, so far as the traffic analysis data are concerned, and of 21 carriers for the purposes of cost studies. The carriers were selected, it is explained, in such fashion that the composite operations of the group would be typical, as nearly as possible, of all principal trucker operations in the Midwest, although most of the operators were carriers under federal possession.

Engineer Forestalls Train-Stop; Collision Follows

Failure of the engineer of a following train to comply with rules resulted in a rear-end collision on the Southern near White Sulphur, Ga., on December 19, 1945, in which 2 passengers and 1 employee were killed and 6 passengers and 4 employees were injured, according to the report of an investigation by the Interstate Commerce Commission under the supervision of Commissioner Patterson.

White Sulphur is about 59 miles north of Atlanta on the road's double-track main line from that point to Washington, D. C., and in territory where trains moving with the current of traffic are operated by timetable, train orders, an automatic block signal system and an automatic train stop system. Due to a sleet storm and resulting interference with the power supply the automatic signals had been inoperative for more than an hour preceding the time of the collision (12:20 p. m.), but the automatic train stop system was functioning properly. Under the rules, an imperfect or missing signal indication where one should be displayed must be taken as the most restrictive aspect possible at that point.

The trains involved were the second section of No. 34, the "Piedmont Limited," made up of an engine and 12 passenger train cars, and Extra 4837 North, a freight consisting of an engine, 43 cars and caboose, both northbound on the northward main track. As the passenger train traversed the line in the vicinity of White Sulphur, where the signals were inoperative, it stopped at each signal (except a grade signal 2.09 miles south, where restricted speed was the most restrictive aspect), and was just getting under way after such a stop, moving about 4 m. p. h., when it was struck in the rear by the following freight. The rear truck of the ninth car of Second No. 34, a coach, and the tenth to twelfth cars (two coaches and an express car, in that order) were derailed. The tenth car stopped on top of the ninth and at right angles to the track. The eleventh car was overturned, and the steel-underframe express car on the rear was telescoped its entire length and demolished. The eighth to eleventh cars, inclusive, of the passenger train were badly damaged, while the engine and first eight cars of the freight were derailed and badly damaged.

The engineer of the freight was killed

in the accident, so it could not be determined why he failed to comply with the rules requiring him to stop at each of the inoperative signals, except that the fireman said he was told such stops would cause excessive delay. At any rate, the train proceeded at about 25 m. p. h., and the acknowledging lever was operated at each signal to forestall an automatic application of the brakes by the train stop system. After passing the last signal south of the point of the collision, a distance of 1.19 miles, speed increased on a descending grade, and the engineer made a service application of the brakes, reducing speed to about 20 m. p. h. Again, about 45 seconds after this application was released, another service application was made, before the brake pipe pressure was fully restored. Before the exhaust from this application had ceased, the preceding train was seen about 800 ft. ahead, and an emergency application was made, the effect being to reduce speed to about 15 m. p. h. when the collision occurred.

The flagman of Second No. 34 had left a lighted 10-min. fusee at a point about 4.9 miles south of the collision point, but the enginemen of the following train did not see it, and the report suggested it probably had burned out before the freight reached that point. It went on to say that, "if the crew of the following train had seen lighted fusees on the track, they would have been required to stop to extinguish them, and then required to operate their train in such a manner that it could be stopped short of another train or an obstruction. The automatic train stop system was so arranged that as the following train closed up on the preceding train an automatic application of the brakes of the following train would occur at each signal, if such application had not been forestalled by the engineer. The rules require that the acknowledging lever must not be used until after the signal indication is being obeyed. However, the acknowledging lever was operated, the train passed each of these signals without stopping and entered the block occupied by Second 34."

Excursion Prohibition in Canada May End Soon

Lionel Chevrier, Canada's Minister of Transport, has further extended until March 15 the period in which the Dominion's railways are forbidden to sell excursion tickets at reduced rates. The Minister expressed the hope that it would not be necessary to continue this and other restrictions on public travel after that date.

Equipment and Supplies

C. & N. W. $82 Million Budget

Directors of the Chicago & North Western have approved improvement and maintenance budgets totaling $82,700,000 for 1946. This includes $28,800,000 for capital improvements and new equipment, of which $9,400,000 is for additionns and improvements to roadway and fixed property; $3,500,000 for improvements to existing rolling stock, and $15,900,000 for new equipment now on order. The maintenance budget totals $53,900,000, of which $23,200,000 is for maintenance of way and structures and $30,700,000 for maintenance of equipment.

PASSENGER CARS

The PENNSYLVANIA's order for 57 passenger cars placed with the American Car & Foundry Co. comprises 7 cars having 21 roomettes; 15 cars each consisting of four compartments, four double bedrooms and two drawing rooms; 5 twin-unit diners; 21 coaches and 4 baggage-dormitory cars. All of the cars are scheduled to be built at the American Car & Foundry's Berwick, Pa., shops. As reported in the *Railway Age* of January 26, page 225, the 57-car order to American Car & Foundry is part of a group of cars purchased by the Pennsylvania at a cost of $21,000,000 and allocated 57 to American Car & Foundry, 87 to the Pullman - Standard Car Manufacturing Company, and 70 to the Edward G. Budd Manufacturing Company.

SIGNALING

The SPOKANE, PORTLAND & SEATTLE has ordered materials from the General Railway Signal Company to replace the semaphore signals between Willbridge, Ore., and Vancouver, Wash., with Type SA searchlight signals.

The ELECTRO-MOTIVE division of the General Motors Corporation has ordered from the General Railway Signal Company 18 sets of intermittent train control equipment; 16 sets for Diesel-electric freight locomotives for the Southern and the Alabama Great Southern, and two sets for Diesel-electric freight locomotives for the New York Central.

Supply Trade

P. H. Lair, eastern industrial engineer and research consultant, has been appointed manager of the New York sales office of the **Dampney Company of America,** Hyde Park, Boston, Mass.

Frank G. Shaub has been appointed Detroit, Mich., representative of the **Chambersburg Engineering Company.** Mr. Shaub formerly was employed for many years with the Ford Motors Company.

Robert L. Heath, manager of the St. Louis, Mo., office of the **Climax Molybdenum Company,** has been appointed in charge of the company's metallurgical service to the railroads. Before joining Climax, Mr. Heath was chief metallurgist of the Allison division of the General Motors Corporation.

Russell Brittingham has been appointed assistant to the vice-president in charge of the bulb and tubing and technical products divisions of the **Corning Glass Works.** Mr. Brittingham formerly was administrative assistant to the company's associate director of research and development.

D. P. Samson has been appointed manager of foundry sales, in charge of sales of foundry products and wheels, for the **American Car & Foundry Co.** to succeed G. A. England, who has been transferred to the operating division of the foundries and will be located at St. Louis, Mo. Mr. Sampson attended Pennsylvania University and later completed his studies at the Wharton School of Finance. He began his career with the Metal Plating Company of Elizabeth, N. J., working in the experimental laboratory from 1914 to 1917. During the first world war he was employed as a tool designer for the Duesenberg Motors Company, at that time extensively engaged in war work. He joined the American Car & Foundry Co. in May, 1919, and worked in the purchasing department until January, 1930, when he was transferred to the sales division to do special work associated with ballast and hopper cars. From 1930 until the present time, he has been engaged handling sales of miscellaneous products such as forgings, castings, etc. In his present capacity, he will be concerned largely with the sale of chilled tread wheels, wheel tread grinders and other foundry products. He will continue to make his headquarters in New York.

D. P. Samson

Arthur E. Welch has been elected to the newly-created office of vice-president in charge of sales of the **Aireon Manufacturing Corporation.** Mr. Welch formerly was vice-president and treasurer.

The **Parker Appliance Company,** Cleveland, Ohio, has announced the appointment of a number of manufacturers' supply firms as distributors of Parker industrial fittings and tube bending equipment. The new distributors are: the Whitehead Metal Products Company, New York, Boston, Mass., Buffalo, N. Y., Newark, N. J., and Philadelphia, Pa.; Williams & Co., Pittsburgh, Pa., Cleveland and Cincinnati, Ohio; the A. E. Borden Company, Boston; the Carey Machine & Supply Co., Baltimore, Md.; the Louis H. Hein Company, Ardmore, Pa.; Squier-Schilling & Skiff, Newark; Somers-Fitler & Todd, Pittsburgh; the W. M. Pattison Supply Company and Strong-Carlisle & Hammond, Cleveland; the Great Lakes Supply, Chicago the Vincent Brass & Copper Co., Minneapolis, Minn.; the Metal Goods Corporation, St. Louis, Mo., Tulsa, Okla.,

Dallas and Houston, Texas; General Machinery & Supply and the American Brass & Copper Co., San Francisco, Calif.; the Metropolitan Supply Company, Los Angeles, Calif.; and the Eagle Metals Company, Seattle, Wash.

Alfred H. Willett has been elected vice-president in charge of engineering of the **American Arch Company,** New York, to succeed **John P. Neff,** who has retired after 32 years in the post. **Thomas Mahar,** manager of the company's service department, also has retired.

Mr. Willett was born in England in 1885. Coming to America as a boy, he was edu-

Alfred H. Willett

cated in the Chicago public schools and at the Armour Institute, Chicago. He entered the railway supply business in 1908 with the engineering department of the American Locomotive Equipment Company at Chicago, and two years later joined American Arch as chief draftsman. He had been a mechanical engineer with the comnany since 1926.

Mr. Neff was graduated from Purdue University in 1895 with a degree in mechanical engineering. He immediately went

John P. Neff

to work for the Chicago & North Western, and in 1902 was appointed master mechanic of the road's western Iowa division. He joined the American Locomotive Equipment Company, Chicago, in 1904 and six years later joined the American Arch Company. During the next five years he was engineer of tests and mechanical engineer. He was elected vice-president in charge of engineering in 1913.

Mr. Mahar had been with the company since 1912, first as a service engineer. He entered railroad service in 1891 as a machinist's apprentice with the Rome, Water-

Thomas Mahar

town & Ogdensburg, now a part of the New York Central system. In 1904 he was in charge of the New York Central exhibit at the St. Louis, Mo., exposition, and later held the following posts with that railroad: assistant superintendent of tools and machinery, roundhouse foreman at the Chatham, N. Y., shops, general foreman at Mott Haven, N. Y., general foreman at High Bridge, N. Y., terminal master mechanic at Albany, N. Y., and master mechanic at New York.

OBITUARY

William Anderson, who retired in June, 1944, as sales manager of the Chicago office of the Pantasote Company, died at his home in Chicago on February 11.

Mortimer Middleton, for the past four years Chicago district manager of SKF Industries, Inc., and an authority on the development of anti-friction bearings and their application to mechanical devices, died at his home in Winnetka, Ill., on February 5.

Robert L. Gordon, vice-president and a director of the Pullman-Standard Car Manufacturing Company, and a vice-president of the Pullman-Standard Car Export Corporation (a subsidiary firm), died at St. Petersburg, Fla., on February 12. Born at New York, Mr. Gorden was a graduate of Cornell University and shortly after leaving college in 1895 he entered the employ of the Baldwin Locomotive Works. In 1897 he entered the engineering department of the Pressed Steel Car Company where James Buchanan Brady, later to be known as "Diamond Jim" Brady, was employed as a salesman of railroad equipment. In 1902 when Mr. Brady was elected vice-president of the newly-organized Standard Steel Car Company, Mr. Gordon went along as assistant to John Hansen, president of the new firm. In 1917 Mr. Gordon was elected vice-president, succeeding Mr. Brady, who died in that year and when, in 1930, Standard Steel and Pullman-Standard were merged he was elected to the position he held at the time of his death.

Construction

READING.—This railroad has awarded a contract for the furnishing and erection of a new steel superstructure for its bridge east of Newtown Junction, Philadelphia, Pa., at estimated cost of $25,260, to the American Bridge Company of Philadelphia.

SOUTHERN.—This company plans an extensive program of improvement and enlargement at Inman yard, which will result in better and faster freight service for the Atlanta, Ga., area. The capacity of the yard will be increased in the immediate future through the relocation of some of the existing tracks and facilities, and the elimination of a hill in the vicinity of the enginehouse. This latter project will involve excavating and moving 70,000 cu. yd. of material. In addition to increasing the capacity of the yard, the proposed new track layout is expected to greatly enhance operating efficiency. Currently, the yard is being equipped with a modern "tele-talk" communications system. By means of this system the yardmaster directs the making up and movement of trains from a centrally-located, air-conditioned tower high above the yard. The installation of two-way loud speakers at strategic points throughout the yard permits the easy and prompt exchange of instructions and information between the yardmaster in the tower and the employees in the yard.

SPOKANE, PORTLAND & SEATTLE.—This road has completed plans for the installation of 45,260-ft. of slide detector fence at an approximate cost of $131,186. The installation will be made at three different points of the main line between Wishram, Wash., and Pasco, and the signal equipment will be purchased from the General Railway Signal Company.

Financial

BOSTON & MAINE.—*R. F. C. Sells Bonds.*—The Reconstruction Finance Corporation has disposed of the remainder of its holdings of obligations of this company, of which it acquired $40,193,000 in 1940 in connection with a financial adjustment effected at that time. Complete liquidation of the R. F. C.'s holdings, resulting in a net premium to the agency of $538,510, was accomplished by the sale of $21,371,000 of the road's series RR first mortgage 4 per cent bonds, due in 1960, with Bear, Stearns & Company of New York taking $1,000,000 at 102, and the railroad and Dick & Merle-Smith of New York taking $1,371,000 and $19,000,000, respectively, each at 101.

BOSTON & MAINE.—*1945 Operating Results.*—Income of $752,928 after fixed charges was earned by the Boston & Maine in 1945, according to the company's yearly financial statement. The corresponding figure for 1944 was $7,082,783. The railroad pointed out that its income after fixed charges for 1945 would have been $3,826,000, except for the inclusion of unusual items in the year's accounts, chiefly the

charging off of the balance of the cost of defense projects.

The statement shows that operating revenues in 1945 amount to $82,232,949, a decrease of $5,109,337, or 5.9 per cent, from 1944 revenue figures. Expenses increased $4,869,234, or 7.4 per cent, but it was explained that the maintenance of equipment account included a debit adjustment of $6,297,614, and maintenance-of-way account a similar adjustment of $78,425, for amortization of defense projects. As a net result of the above adjustment, the road saved $2,678,000 in income taxes. The ratio of operating expenses to operating revenues in 1945 was 85.58 as compared to 75.00 in 1944. An officer of the road stated that while earnings were not sufficient to cover interest on income mortgage bonds, the interest will be paid on May 1 at the rate of 4½ per cent.

Detailed figures for the year, comparing the results in 1945 with those in 1944, show a decrease in freight revenue of 7.7 per cent; in passenger revenue of 1.4 per cent; in mail revenue of 4.7 per cent and in express revenue of 17.5 per cent. The figures for the full year and comparison with 1944 follow:

	1945	1944
Operating Revenues	$82,232,949	$87,342,286
Operating Expenses	70,374,765	65,505,531
Net Operating Rev.....	11,858,184	21,836,755
Taxes	5,039,034	8,498,788
Equipment Rents—Dr...	3,011,962	2,960,359
Joint Fac. Rents—Dr....	246,511	283,477
Net Ry. Oper. Income..	3,560,677	10,094,131
Other Income	1,288,128	1,233,129
Total Income	4,848,805	11,327,260
Total Deductions (Rtls. Int., etc.)	4,095,877	4,244,477
Net Income	752,928	7,082,783

BOSTON & MAINE-CANADIAN PACIFIC.—*Acquisition.*—The Interstate Commerce Commission has been asked to approve an arrangement under which the property of the Connecticut & Passumpsic Rivers is to be acquired by the Boston & Maine and Canadian Pacific, its outstanding bonds are to be paid off, and the company is to be dissolved, with the stockholders receiving about $125 per share. The B. & M. will acquire its portion of the Passumpsic's property, consisting chiefly of the line from White River Junction, Vt., to Wells River, 40.6 miles, directly at a cost of $1,635,788, or 32.9 per cent of the total payment ($4,972,000) to be made the Passumpsic, while the C. P. R. is to acquire the line from Wells River to the international boundary, 68.8 miles, indirectly through its purchase from the Passumpsic of all the capital stock of the Newport & Richford, which is to buy the Passumpsic segment and lease it to the parent company. The cost of the transaction to the C. P. R. will be $3,336,212, or 67.1 per cent of the total. The Passumpsic has been operated under a lease assumed by the B. & M., with that road operating the segment south of Wells River which it is to purchase and the Canadian Pacific operating the segment north of Wells River under a sublease.

The entire capital stock of the Newport & Richford is owned by the Passumpsic, which will sell it to the C. P. R.; the Newport's line, consisting of two segments, totaling 21.5 miles, of the railroad from Newport, Vt., to Brookport, Que. (on the C. P. R. main line), has been operated under lease as part of the Canadian Pacific system. The Passumpsic also owns 4,000 shares (50 per cent) of the stock of the Massawippi Valley, and that stock is to be acquired by the C. P. R. in the transaction; the Massawippi's line from the international boundary to Lennoxville, Que., 32 miles, has been operated as part of the Canadian Pacific system under a sublease. Likewise to be acquired by the C. P. R. is the Passumpsic's 6,400 shares of the capital stock of the Montreal & Atlantic, a part of the Canadian Pacific system operated under lease and controlled through ownership of a majority of the stock outstanding. The agreement also provides for acquisition by the C. P. R. of 1,750 shares of the stock of the Lake Champlain & St. Lawrence Junction owned by the Passumpsic, and an arrangement has been made, it was indicated, for acquisition by the C. P. R. of an equal amount of the Junction's stock held by the Boston & Maine, the two lots constituting about 70 per cent of the amount issued.

CENTRAL OF NEW JERSEY.—*1945 Results Reported.*—The Central of New Jersey has reported a 1945 deficit of $3,684,827 with gross operating revenues of $55,546,969, as compared to a net income of $217,932 earned in 1944 with gross operating revenues of $60,796,386. William Wyer, chief executive officer of the road, attributed the deficit to a drop in revenues, heavier New Jersey taxes, to accelerated amortization of defense projects, and to extraordinary charges for retirement of property and deferred maintenance in December.

The decrease of $5,249,417, or 8.6 per cent, in revenues was due to the rapid decrease in the volume of war material handled during the later months of the year. Taxes paid to the State of New Jersey and its municipalities during 1945 totaled $5,229,462, an increase of $1,763,681, or 51 per cent, over 1944. This increase was almost entirely accounted for by the payment in November of $1,654,098 in additional property taxes and penalties for the year 1941, levied in accordance with a 1945 state supreme court decision.

The sum charged to amortization of defense projects was $2,247,608. Charges for deferred maintenance in December totaled $648,530, but credits for picking up of deferred maintenance from earlier years brought the net increase for the year down to $77,961.

Extraordinary retirements charged out by authority of the Interstate Commerce Commission totaled $1,118,805, due principally to the abandonment of six miles of the railroad's seashore branch and the retirement of Coal Pier 6½ at Elizabethport. Total net charges for deferred maintenance and extraordinary retirements in 1945 amounted to $1,196,766, compared with $1,361,404 in 1944.

By reason of the extraordinary charges in December, which will result in some recovery of federal income taxes paid in earlier years, the 1945 accounts show a net credit for federal income taxes accrued of $729,204, compared with a charge for this item in 1944 of $734,522.

The condensed income figures for 1945 and 1944 are as follows:

	1945	1944
Gross operating revenue.	$55,546,969	$60,796,386
Net railway operating income	145,349	4,496,492
Gross income	1,282,179	5,552,348
Fixed charges & other deductions	4,967,016	5,334,416
Net income	3,684,837*	217,932

* Deficit

GULF, MOBILE & OHIO.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has approved this company's purchase at foreclosure sale of certain tracks and property of the Gulf Terminal at Mobile, Ala., including the passenger station at that point used by this road and its predecessor for many years under a lease arrangement. The terminal's stock was owned by the Southern, but the corporation has been dissolved. The G. M. & O. plans construction of a new station on the site of that purchased from the terminal. The acquisition cost $49,100. The division overruled a motion of the G. M. & O. to dismiss the application for want of jurisdiction, holding that the transaction was one involving sale of carrier property to another carrier, and therefore within its jurisdiction, despite the fact the sale was made by a trustee to an agent of the purchaser.

LITCHFIELD & MADISON.—*Refinancing.*—This company has applied to the Interstate Commerce Commission for authority to issue a $675,000 2½ per cent 10-year installment note in connection with a loan being made by the Boatmen's National Bank of St. Louis, Mo., the proceeds of which are to be applied to the retirement at 102 of the $658,000 outstanding first mortgage 5 per cent bonds due in 1959. The road also proposes to replace its outstanding 5,000 shares of non-cumulative 4 per cent preferred stock with an equal amount of new stock with the same dividend rate but different retirement provisions and to replace its outstanding 5,000 shares of common stock of $100 par value with 100,000 shares of common of $2.50 par value, and commission approval of these exchanges also has been requested.

NEW YORK, CHICAGO & ST. LOUIS.—*Control of Wheeling & Lake Erie.*—On this company's petition, supported by the Chesapeake & Ohio and Alleghany Corporation (previous item in *Railway Age* of January 19, page 215), Division 4 of the Interstate Commerce Commission has reopened its No. 21012 proceedings, in which a voting trust was set up under which was deposited stock of the Wheeling & Lake Erie held by companies in the Alleghany group. The commission will consider at the same time the Nickel Plate's proposal to purchase additional Wheeling stock now owned by the C. & O., and the application of the three companies for authority to acquire direct control of the Wheeling by ownership of stock. The original proceedings will be reopened for consideration of the vacation of orders outstanding, the result of which would be termination of the voting trust.

NEW YORK, SUSQUEHANNA & WESTERN.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has approved maximum limits of allowances for compensation and expenses in connection with this road's reorganization proceedings for the period, generally, from June, 1937, to April or July, 1945, the total so approved being $255,589 on claims for $389,-

191. The largest amount involved was the claim of Root, Clark, Buckner & Ballantine for $58,979 as counsel for three insurance companies holding substantial amounts of securities and for $50,000 as special counsel for the trustee, the maximum fixed by the division being $50,479 and $27,500, respectively. Other large claims included the following: Rathbone, Perry, Kelley & Drye, counsel for the trustee under the Paterson Extension and Midland mortgages, $31,116, on which $18,741 was allowed; J. Harlin O'Connell, counsel for a group of general mortgage bondholders, $41,259, on which $29,259 was approved; United States Trust Company, trustee under the terminal mortgage, $20,000 claimed and $11,000 approved; Stewart & Shearer and Langdon E. Morris, counsel for the trust company, $36,139 claimed and $29,139 approved; Anderson, Rugge & Coleman, counsel for the trustee under the first and refunding mortgage, $26,287 claimed and $17,287 approved; Harrison & Roche & Darby, counsel for the second mortgage trustee, $27,148 claimed and $18,148 approved; and Edith A. Merritt, a bondholder, $25,077 claimed and $1,000 approved.

ST. LOUIS-SAN FRANCISCO.—*Reorganization.*—The United States Circuit Court of Appeals at St. Louis, Mo., has affirmed a court order of Federal Judge George H. Moore approving reorganization of the St. Louis-San Francisco and its various subsidiaries. In its decision the circuit court overruled contentions of the debtor railroad and two minor claimants that stockholders and unsecured creditors should be given an equity in the reorganized road. The principal contention was that the railroad's capitalization should be increased above the amount recommended by the Interstate Commerce Commission to allow for consideration of claims of stockholders and unsecured creditors. Under the reorganization plan capitalization was reduced from approximately $480,000,000 to $247,000,000. The court observed that the plan has been accepted by more than two-thirds of the secured creditors and bondholders and was confirmed by the District Court. "Certainly in those circumstances there should be no further delay in this proceeding which already has been pending for more than 12 years," the opinion stated.

SOUTHERN PACIFIC. — *Refunding.* — The Southern Pacific Railroad has applied to the Interstate Commerce Commission for authority to issue $50,000,000 of series F first mortgage bonds due in 1996, the proceeds of which, with other funds, are to be applied to the retirement at 103½ of an equal principal amount of series C 3¾ per cent first mortgage bonds also due in 1996. The Southern Pacific Company has asked for authority to guarantee the new issue.

Average Prices Stocks and Bonds

	Feb. 13	Last week	Last year
Average price of 20 representative railway stocks..	66.86	67.26	49.69
Average price of 20 representative railway bonds..	102.85	103.26	86.34

Dividends Declared

Chestnut Hill.—Quarterly, 75¢, payable March 4 to holders of record February 20.

Chicago Great Western.—5% preferred, accumulative, 62½¢, payable March 29 to holders of record March 14.

Chicago & North Western.—5% preferred A, $1.25, payable April 15 to holders of record March 22.

Rutland & Whitehall.—Quarterly, $1.05, payable February 15 to holders of record February 1.

Abandonments

ATLANTIC COAST LINE.—With Commissioner Miller dissenting, a majority of Division 4 of the Interstate Commerce Commission, made up of Commissioners Porter and Mahaffie, has denied this company's application for authority to abandon a branch from Sprague, Ala., to Luverne, 33 miles, thus departing from the recommendation of Examiner Romero, noted in *Railway Age* of June 30, 1945, page 1166, for approval of the proposal. Abandonment was opposed by the State of Alabama and the Alabama Public Service Commission as well as by local interests. While the chief business of the territory served is agriculture, and "it is obvious that the transportation of agricultural products is not dependent upon the branch," the majority noted that a number of industries would be adversely affected, and it expressed the opinion that, since the average annual traffic of the branch in 1942-1944 was more than 2,000 cars, any loss to the road from its continued operation would be outweighed by the detriment the affected communities would suffer from its abandonment.

CHICAGO, ATTICA & SOUTHERN.—Division 4 of the Interstate Commerce Commission has "modified" the certificate of September 10, 1943, authorizing the abandonment by this road's owner, Dulien Steel Products, of certain mileage, effective October 20, 1943, by attaching thereto a condition for the compensation of certain employees for loss of wages between September 15 and October 19, inclusive, on account of suspension of operation of the line, "under color of embargo," in advance of the effective date of the certificate. As noted in *Railway Age* of August 25, 1945, page 352, Examiner Molster had recommended in a proposed report that the order modifying the certificate be delayed to afford opportunity for settlement of the employees' claims, but the division noted that this has not been done, so far as it was informed. If service had not been discontinued in advance of the effective date of the certificate authorizing abandonment, it pointed out, conditions for the protection of employees would not have been warranted.

PERE MARQUETTE.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon a branch from Williamsburg, Mich., to Elk Rapids, 9.01 miles, on condition that the Burlington case provisions for the protection of employees adversely affected be applied and that the authorization be effective 6 months after the date of the order. Approval of the proposal by a majority of the division was based on its conclusion that "another form of transportation" is used to handle most of the traffic of the territory served by the branch, and that the road "has not been precipitate" in seeking such authority. Abandonment has been protested by local interests, and Commissioner Porter, dissenting from the majority view of Commissioners Mahaffie and Miller, noted that shippers would suffer injury therefrom and that such loss to the public must be weighed against the burden imposed on the carrier, on which principle he concluded that the weight of the evidence is against abandonment "at this time."

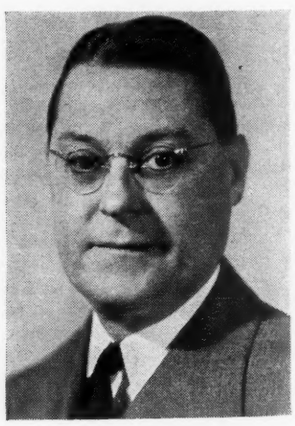
Railway Officers

EXECUTIVE

John R. Grove, general manager of the Lehigh Valley, has been appointed vice-president and general manager, with headquarters as before at Bethlehem, Pa.

L. A. Beck, executive assistant to president of the Norfolk Southern at Norfolk, Va., has been elected executive vice-president by the board of directors. The office of executive assistant to president has been abolished.

Howard E. Simpson, whose appointment as assistant vice-president—traffic, of the Baltimore & Ohio at Baltimore, Md., was announced in the February 9 issue of *Railway Age,* was born in Jersey City, N. J., on March 15, 1896, and started his railway career in 1912 as a clerk for the Central of New Jersey, subsequently holding clerical positions in the ticket stock, billing, filing, advertising, and rate departments. After serving in the United States Navy from November, 1917, to May, 1919, Mr. Simpson returned to the Central of New Jersey as purser on its steamer Sandy Hook, then becoming rate clerk in 1920, and city passenger agent at New York in



Howard E. Simpson

1922. In 1925, he was appointed advertising agent and later district passenger agent at Newark, N. J., being named general Eastern passenger agent at New York in May, 1926, and assistant general passenger agent there in July of the same year. Mr. Simpson joined the B. & O. in 1931, as general Eastern passenger agent at New York, and was promoted to assistant to

general passenger traffic manager at Baltimore in 1936, advancing to assistant passenger traffic manager there in 1941. He became general passenger traffic manager with the same headquarters in January, 1944, maintaining this position until his recent appointment.

Patrick H. Joyce, president of the Chicago Great Western, with headquarters at Chicago, will announce his retirement, because of ill health, on May 21 when the annual meeting of the board of directors is held. He will remain, however, as a director of the railroad.

Robert M. Edgar, assistant to the executive vice-president of the Maine Central, with headquarters at Portland, Me., has been appointed assistant to the president of the Boston & Maine and the Maine Central, effective March 1, succeeding **Laurence F. Whittemore,** whose appointment to the presidency of the Boston Federal Reserve Bank was reported in the February 9 issue of *Railway Age,* accompanied by a photograph of Mr. Whittemore and an account of his career.

Charles H. Buford, formerly general manager, lines west, of the Chicago, Milwaukee, St. Paul & Pacific, who has been on leave of absence to serve as vice-president, operations and maintenance, of the Association of American Railroads at Washington, D. C., has returned to the Milwaukee and has been elected a vice-president effective March 1.

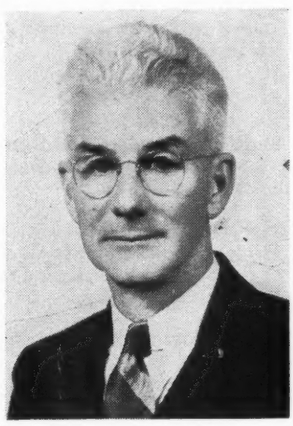
FINANCIAL, LEGAL AND ACCOUNTING

Eugene R. Miller, whose promotion to assistant general auditor of the Union Pacific, with headquarters at Omaha, Neb., was reported in the *Railway Age* of January 26, was born at Salt Lake City, Utah; entered railroad service on January 21, 1918, as an office boy in the disbursements accounting department of the Oregon Short Line (part of the Union Pacific) at Salt Lake City, and served in various clerical capacities until 1934, when he was appointed chief clerk of that department. In January, 1936, Mr. Miller became head clerk to the auditor of disbursements of the Union Pacific at Omaha, later becoming assistant chief clerk. He was advanced to assistant auditor of disbursements in January, 1943, and in March, 1945, he was promoted to assistant to the general auditor, the position he held at the time of his recent promotion.

Eugene R. Miller

C. C. Michie, assistant secretary of the Chesapeake & Ohio at Richmond, Va., has been appointed assistant treasurer there, succeeding **John A. Hancock,** whose death on January 28, after 67 years' railway service, was reported in the February 9 issue of *Railway Age.* Mr. Michie will continue as assistant secretary as well as assistant treasurer.

J. E. McConnell, whose promotion to auditor of disbursements of the Missouri Pacific, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of February 9, was born at St. Louis on February 1, 1882, entered railroad service on June 1, 1898, as an office boy in the passsenger accounting department of the Missouri Pacific at St. Louis, and served in various minor capacities until February 1, 1916, when he became division accountant. From March 25, 1917, to October 19, 1919, he was special accountant and valuation accountant for the Delaware & Hudson, at Albany, N. Y. Mr. McConnell returned to the Missouri Pacific on October 19, 1919, as special accountant, became traveling auditor on September 1, 1920, and was promoted to chief traveling auditor on June 1, 1935. On November 1, 1938, he was advanced to assistant auditor of disbursements, the position he held at the time of his recent promotion.



J. E. McConnell

H. A. Palmer, right of way agent of the Canadian National at Toronto, Ont., has been advanced to regional manager of the real estate department with jurisdiction over the Central region and headquarters in Toronto. **G. C. Baird,** land commissioner at Winnipeg, Man., has been named regional manager of the Western region, headquarters as before. **R. J. Minshall,** chief clerk of the real estate department at Montreal, Que., has been appointed assistant to the manager.

OPERATING

J. W. Smith, whose appointment as assistant general superintendent of the Seaboard Air Line with headquarters at Savannah, Ga., was announced in the February 2 issue of *Railway Age,* was born in Baltimore, Md., on July 20, 1900. He was graduated from the University of Maryland and began his railroad career in April, 1924 at Norfolk, Va. He joined the Seaboard during the same year as engineering inspector at Columbia, S. C., and has since served throughout the Seaboard system, in capacities ranging from inspector to superintendent. At the time of his promotion to assistant general superintendent he was assistant chief engineer with headquarters at Norfolk.

Foster

J. W. Smith

Several new appointments in the dining service of the New York Central have been announced: **J. P. Downey** has been named superintendent at Buffalo, N. Y.; **T. H. Ryan,** assistant to general superintendent, New York; **J. G. Mackenzie,** assistant superintendent, Boston, Mass.; **E. Stevens,** general inspector, Chicago; and **R. E. Smith,** general terminal inspector, Chicago.

C. H. Sauls, whose appointment as general superintendent of the Seaboard Air Line at Norfolk, Va., was announced in the February 2 issue of *Railway Age,* was born at Raleigh, N. C., on March 21, 1893. He began his railway career in 1906 as a clerk-operator for the Seaboard Air Line at Hamlet, N. C. From 1910 to 1915 he served a number of railroads, among them the C. B. & Q., the Frisco, the Southern, and the Union Pacific, in a territory stretching roughly from Birmingham, Ala.,

C. H. Sauls

to Cheyenne, Wyo. He returned to the Seaboard as an operator in 1915, becoming a train dispatcher in that year, and advancing to chief dispatcher in 1917, then trainmaster in 1919. He was appointed superintendent of the Virginia division at Raleigh in 1923, and transferred to the North Carolina division in 1927, then to the South Carolina division at Savannah, Ga., in 1935. Mr. Sauls was promoted to assistant general manager at Savannah in 1939, and maintained this post until his recent advancement became effective on January 10.

A. C. Dewhirst, traveling agent of the refrigerator department of the Atchison, Topeka & Santa Fe at Amarillo, Tex., has been appointed assistant manager of that department, with headquarters at Chicago.

A. F. McIntyre, whose appointment as general superintendent of the Pennsylvania, with headquarters at Indianapolis, Ind., was reported in the *Railway Age* of January 26, was born at Canandaigua, N. Y., on April 4, 1892. He gained his first knowledge of railroading by working on the Northern Central railway after school

A. F. McIntyre

during the autumn seasons of 1905, 1906 as a fruit handler. After completing a high school education, he studied telegraphy and in May, 1909, he entered the service of the Pennsylvania as a telegraph operator on the Elmira division. In March, 1913, he was promoted to clerk and operator at Elmira, N. Y., and in April, 1918, he was appointed extra train dispatcher, becoming one of the regular train dispatchers on the Elmira division in June, 1918. Mr. McIntyre was appointed yardmaster on the Williamsport division in August, 1927. He was advanced to assistant trainmaster in April, 1928, and then to supervisor of train service of the Central Pennsylvania general division in February, 1929. He was promoted to trainmaster in December, 1929, and assigned to the Norfolk division at Cape Charles, Va., continuing on the Delmarva division when it was established on April 16, 1930. In November, 1934, he became trainmaster of the St. Louis division at Terre Haute, Ind. Mr. McIntyre was appointed superintendent of freight transportation of the Eastern region in April, 1935, and in 1940 he was appointed superintendent of passenger transportation, with headquarters as before at Philadelphia, Pa., the position he held until 1942, when he entered the services of the armed forces, from which he was honorably discharged with the rank of brigadier general.

R. T. Blackson, supervising agent of the Pennsylvania-Reading Seashore Lines and the Atlantic division of the Pennsylvania at Camden, N. J., has been transferred to the Long Island at Jamaica, N. Y., succeeding **W. C. Fisher,** whose photograph appeared in the December 29 *Railway Age,* along with a biographical account of his railway career.

H. S. Purdy and **P. M. Wolfe** have been appointed assistants to general superintendent passenger transportation of the New York Central. **J. H. Barry** has been named trainmaster, St. Lawrence and Adirondack divisions, with headquarters at Watertown, N. Y.

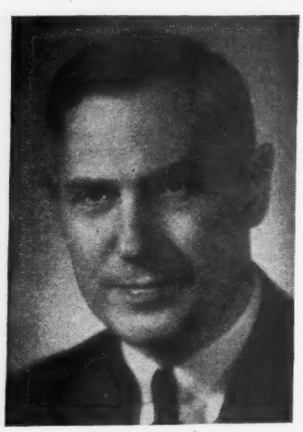
William S. Carr, formerly assistant superintendent of the New York, New Haven & Hartford, with headquarters at New Haven, Conn., has recently returned from military service overseas as a colonel in command of the 729th Railroad Operating Battalion, and has been appointed manager of the New Haven's dining service, at New Haven.

TRAFFIC

E. S. Smith has been appointed general agent for the Southern, with headquarters at Washington, D. C.

Robert Huersch has been appointed assistant to the western freight traffic manager of the Chicago, Rock Island & Pacific, with headquarters at Los Angeles, Cal.

W. P. Lee, whose promotion to general freight agent of the Pere Marquette, with headquarters at Detroit, Mich., was reported in the *Railway Age* of February 2, was born at Brighton, Mich., on August 3, 1890, entered railroad service on March 8, 1909, with the Pere Marquette at Detroit, and served successively as mail clerk, tariff clerk, rate clerk, and traveling transit



W. P. Lee

inspector until February, 1918, when he entered the service of the armed forces. In April, 1919, he re-entered the service of the Pere Marquette as a rate analyst in the general freight department at Detroit. From April, 1920, to December, 1922, he was assistant traffic manager with an automobile manufacturing company. Returning to the Pere Marquette in December, 1922, he served successively as special clerk, rate analyst, and transit clerk until May, 1932, when he was promoted to chief clerk to the freight traffic manager. In March, 1939, Mr. Lee was advanced to assistant general freight agent at Detroit, the position he held at the time of his recent promotion.

C. H. Jens has been appointed general freight agent of the Pere Marquette, with headquarters at Milwaukee, Wis. The position of assistant general freight agent at that point has been abolished.

J. H. Jackson, recently released from the armed forces, and former traffic representative of the Wheeling & Lake Erie and the Lorain & West Virginia, has been appointed general agent of those roads, with headquarters as before at Chicago.

E. L. Thrall, whose promotion to assistant freight traffic manager, rates, of the Pere Marquette, with headquarters at Detroit, Mich., was reported in the *Railway Age* of February 2, entered the service of

E. L. Thrall

the Pere Marquette in 1907 as a ticket agent at Paw Paw Lake, Mich., and served in various capacities in the operating department of the Chicago division at St. Joseph, Mich., and Detroit until April, 1910, when he became a tariff clerk in the tariff bureau. In June, 1920, he was promoted to chief clerk in the tariff bureau, and to chief of the tariff bureau in July, 1931. Mr. Thrall was promoted to assistant general freight agent in July, 1936, and in March, 1939, he was advanced to general freight agent at Detroit, the position he held at the time of his recent promotion.

J. F. Whittington, assistant passenger traffic manager of the Baltimore & Ohio at Chicago, has been appointed general passenger traffic manager at Baltimore, Md., succeeding **H. E. Simpson,** promoted to assistant vice-president, traffic. **R. E. Coleman,** general passenger agent at New York, has been promoted to passenger traffic manager at Chicago, while **C. R. Van Horn,** assistant general passenger agent at St. Louis, Mo., succeeds Mr. Coleman at New York. **H. L. Porter,** division passenger agent at Cincinnati, Ohio,

News Department continued on second left-hand page

a giant's job demands a GIANT

An illustration of the stupendous job the railroads are doing is the record of the Southern Pacific. Toward the close of 1945 its passenger traffic was running about six times its prewar passenger miles, while the ton-miles of freight hauled in 1945 nearly trebled the amount carried in 1939.

Such a record was made possible by the employment of steam motive power, such as these Lima-built Southern Pacific 4-8-4s and 2-8-8-4s, capable of handling the heaviest trains at sustained high speeds.

LIMA
LOCOMOTIVE WORKS
INCORPORATED

INCORPORATED, LIMA, OHIO

has been promoted to assistant general passenger agent at St. Louis, succeeding Mr. Van Horn, and **J. D. Healey,** division passenger agent at Cleveland, Ohio, has been transferred to Cincinnati. **W. R. Welden,** division passenger agent at Pittsburgh, Pa., has been transferred to succeed Mr. Healey at Cleveland.

G. L. Brooks, traveling freight and passenger agent of the Texas & Pacific, has been appointed general agent at Big Spring, Tex., succeeding **W. E. Wright,** who has been transferred to the road's new offices at Houston, Tex.

Howard G. Settle, whose appointment as freight traffic manager of the Baltimore & Ohio at Baltimore, Md., was announced in the January 26 *Railway Age,* was born in Hamilton County, Ohio, on January 24, 1882, and attended Ohio State University. He entered railroad service in 1900 as a messenger for the Baltimore & Ohio Southwestern (now B. & O.), subsequently serving in various clerical positions in the general freight department, and advancing

Howard G. Settle

to chief clerk, freight department, at Cincinnati, Ohio, in 1915. In 1919 he became division freight agent Chillicothe, Ohio; in 1921, transferred to Seymour, Ind.; in 1922, promoted to assistant general freight agent, Baltimore, Md. Mr. Settle was appointed assistant to freight traffic manager in 1926, general freight agent in 1930, then assistant freight traffic manager in 1937, maintaining the latter post until his recent advancement.

F. J. Petagna, commercial agent of the Chicago, Burlington & Quincy at Mobile, Ala., has been promoted to general agent at New Orleans, La., succeeding **J. W. Grady,** who has been transferred to Jacksonville, Fla., to replace **T. H. Harrison,** deceased. **P. L. Smithburg,** assistant to the vice-president at Chicago, has been appointed general agent at Detroit, Mich.

E. M. Cheney, whose appointment as assistant traffic manager of the Waterloo, Cedar Falls & Northern, with headquarters at Chicago, was reported in the *Railway Age* of January 26, was born at Cedar Heights, Iowa, on May 26, 1913, and entered railroad service in June, 1937, as a rate clerk in the traffic department of the Waterloo, Cedar Falls & Northern. Mr. Cheney was promoted to commercial agent in February, 1939, and in July, 1940, he was advanced to general traveling agent, the position he held at the time of his entry into the armed forces on March 2, 1942.

O. W. Rowland has been appointed district manager, perishable traffic, of the Missouri Pacific, with headquarters at Los Angeles, Cal., succeeding **I. J. Keyes,** who has been transferred to San Francisco, Cal., where he succeeds **H. C. Westbrook,** whose promotion to general freight agent at St. Louis, Mo., was reported in the *Railway Age* of January 12.

E. L. Davis has been appointed district passenger agent of the Chesapeake & Ohio at Cincinnati, Ohio. **W. A. Griffith** has been appointed district passenger agent at Indianapolis, Ind. **R. S. Stewart** has been appointed division passenger agent at Lexington, Ky. **J. A. Orcutt** has been appointed western passenger agent at St. Louis, Mo.

W. E. Frackelton, assistant general passenger agent of the New York Central at Detroit, Mich., has been appointed general passenger agent, with the same headquarters. **R. R. Spangenberg,** assistant general passenger agent, has been appointed general passenger agent, with headquarters as before at St. Louis, Mo. **L. A. Schroeder,** assistant general passenger agent at Cleveland, Ohio, has been appointed general passenger agent, with the same headquarters.

The passenger traffic department of the Chesapeake & Ohio has announced the following changes: **F. L. Amos** has been appointed general agent at Norfolk, Va., succeeding **F. W. Curd,** whose retirement was announced in the *Railway Age* of February 2. **H. C. Green** has been appointed division passenger agent at Huntington, W. Va. **W. P. Walker** has been named district passenger agent at Philadelphia, Pa., reopening the Philadelphia passenger agency, which was closed during the war period.

ENGINEERING & SIGNALING

L. G. Shriver, assistant to the system maintenance engineer of the Union Pacific at Omaha, Neb., has been appointed assistant to the chief engineer, with the same headquarters.

G. L. Plow, assistant division engineer, Laurentian division, Quebec, of the Canadian National, has been appointed division engineer of the Ottawa division, with headquarters at Ottawa, Ont., succeeding **W. E. Griffiths,** who has been transferred to Montreal, Que., succeeding **H. K. Morrison,** whose promotion was announced in the *Railway Age* of February 9.

K. J. Wagoner, chief engineer of the Lakefront Dock & Railroad Terminal Company (half-owned by the Baltimore & Ohio), with headquarters at Toledo, Ohio, has been appointed assistant chief engineer of the Baltimore & Ohio at Baltimore, Md., succeeding **E. L. Gosnell,** who has been appointed chief engineer of the Reading, with headquarters at Philadelphia, Pa., not of the B. & O., as was inadvertently reported in the *Railway Age* of February 9. It was also incorrectly implied that **E. Y. Allen,** whom Mr. Gosnell succeeded, had been chief engineer of the B. & O., rather than of the Reading, as he actually was.

Mr. Wagoner was born on December

K. J. Wagoner

21, 1892, at Davis, W. Va., and was graduated from West Virginia Wesleyan, at Buckhannon, W. Va., in June, 1917, entering railway service that same month as rodman with the Baltimore & Ohio. In October, 1917, he became a levelman, then, in March, 1918, transitman. He was advanced to field engineer in October, 1918, and to assistant engineer in April, 1926, then having headquarters at Pittsburgh, Pa. He was promoted to regional engineer there in September, 1941, and held this position until he joined the Lakefront Dock & Railroad Terminal Company in May, 1945, as chief engineer.

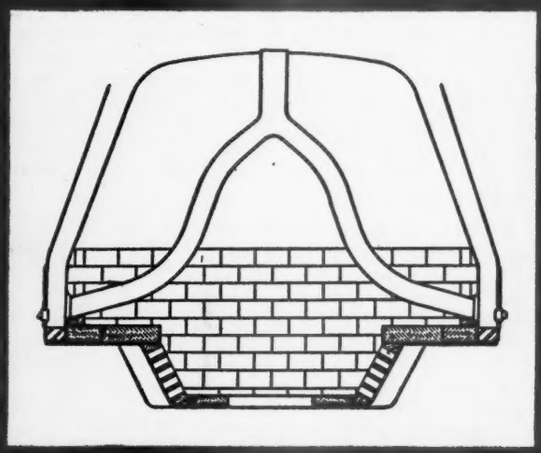
R. A. Morrison, whose promotion to engineer maintenance of way of the Pere Marquette, with headquarters at Detroit, Mich., was reported in the *Railway Age* of February 2, was born at Alpena, Mich.,

R. A. Morrison

on January 23, 1897, received his higher education at Michigan State College, and entered railroad service on June 25, 1923, as an engineer inspector on the Pere Marquette at Flint, Mich. From September

News Department continued on next left-hand page

Security Circulators



improve boiler performance of oil-burning locomotives

Security Circulators, extending through the firebox from bottom of the side sheets to the crown sheet, provide heating surfaces directly in the flame path, thus utilizing the full value of the fuel.

The circulation induced by the Circulators tends to maintain a more uniform water temperature throughout the boiler, and also assures a positive flow of water over the center of the crown sheet.

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

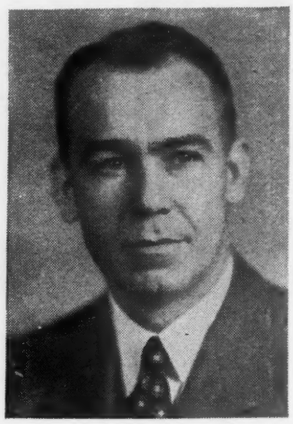
SECURITY CIRCULATOR DIVISION

26, 1924, to September 17, 1926, he was track supervisor with headquarters at Saginaw, Mich., being promoted on the latter date to assistant engineer at Grand Rapids, Mich., where he remained until April 1, 1927, when he returned to Saginaw as division engineer. On March 1, 1931, Mr. Morrison was transferred to Detroit, and served there as division engineer until the time of his recent promotion.

A. A. Woods, whose retirement as chief engineer, maintenance of way and structures, Western Lines, of the Southern, with headquarters at Cincinnati, Ohio, was reported in the *Railway Age* of February 2, was born at New Orleans, La., on March 2, 1876, received his higher education at Tulane University, and entered railroad service on July 8, 1895, as a rodman on the New Orleans & Western (now part of the Southern). From June 8, 1896, to December 31, 1897, he served as draftsman on the New Orleans & Northeastern. On January 1, 1898, he became a draftsman on the Alabama & Vicksburg and the Vicksburg, Shreveport & Pacific, and served in that capacity until September 30, 1898, when he was appointed assistant engineer, maintenance of way, on the same roads. He returned to the New Orleans & Northeastern on October 1, 1899, as assistant engineer, maintenance of way. On November 24, 1901, he re-entered the service of the Alabama & Vicksburg and the Vicksburg, Shreveport & Pacific roads as engineer, maintenance of way. From July 20, 1913, to February 5, 1915, he was engineer, maintenance of way, of the New Orleans & Northeastern, being promoted on February 6 of the latter year to superintendent of the same road with headquarters at New Orleans. In January, 1917, he became superintendent also of the New Orleans Terminal Company, which position he held until April 15, 1919, when he was appointed chief engineer, maintenance of way and structures, of the Southern, Lines West. On August 1, 1934, Mr. Woods was appointed to a similar position with the newly formed Western Lines, with headquarters at Cincinnati, the position he held at the time of his retirement.

A. A. Woods

R. R. Manion, whose promotion to engineer maintenance of way of the Great Northern, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of January 12, was born at Phillipsburg, Kan., on May 30, 1911, received his higher education at the University of Illinois, and entered railroad service on June 15, 1934, with the Pennsylvania at Philadelphia, Pa. In January, 1935, he became assistant supervisor of track at Harrington, Del., and was transferred to Denison, Ohio, in January, 1936. From March, 1937, to September, 1938, he served as assistant supervisor on special duty with the assistant chief engineer of maintenance of way at Philadelphia and Johnstown, Pa. In September, 1938, Mr. Manion entered the service of the Great Northern as office assistant in the office of the vice-president, operating, at St. Paul, and served in that capacity until May, 1940, when he became trainmaster-division engineer at Klamath Falls, Ore. In January, 1942, he was appointed terminal trainmaster at Minneapolis, Minn., which position he held until November, 1942, when he entered the service of the armed forces.



R. R. Manion

Frederick W. Alexander, whose retirement as assistant chief engineer of the Western region of the Canadian Pacific, with headquarters at Winnipeg, Man., was reported in the *Railway Age* of February 2, was born at Fredericton Junction, N. B., on November 22, 1878, entered railroad service in June, 1897, in the chief engineer's office of the Bangor & Aroostook, and served in various capacities in the engineering department of that road, including that of resident engineer on construction. In 1903 he was employed on location work for the Restigouche & Western (now part of the Canadian National system). Later in the same year he entered the service of the Canadian Pacific as a transitman at Moose Jaw, Sask., and after holding various positions in the engineering department, he served successively as division engineer at Calgary, Alta., and Cranbrook, B. C., and as district engineer at Calgary and Vancouver, B. C. Mr. Alexander was promoted to engineer of maintenance of way of the Western lines in August, 1927, with headquarters at Winnipeg. In 1939 he was advanced to the position he held at the time of his retirement.

G. M. Helmig, whose promotion to district engineer, Southern district, of the Missouri Pacific, with headquarters at Little Rock, Ark., was reported in the *Railway Age* of January 26, was born at Wymore, Neb., on August 19, 1894, received his higher education at the University of Nebraska, entered railroad service in April, 1913, as a rodman on the Chicago, Burlington & Quincy, and served in various minor positions until 1918, when he became division engineer on that road. He resigned in May, 1921, to enter private engineering practice, and returned to railroad service in 1928 with the Missouri-Illinois as valuation engineer, and later as assistant engineer. In 1931 he became assistant bridge and building supervisor of the Missouri Pacific, and from 1932 to 1936 he served as assistant engineer of the same road. From 1936 to 1941 Mr. Helmig was master of trains and tracks for the Missouri-Illinois, and from 1942 to 1945 he served as chief engineer for the U. S. Railway Mission in Mexico. In April, 1945, he was appointed division engineer of the Missouri-Memphis divisions of the Missouri Pacific, with headquarters at Poplar Bluff, Mo., the position he held at the time of his recent promotion.

MECHANICAL

Roy A. Smith, whose appointment as mechanical engineer (locomotive) of the Canadian Pacific at Montreal, Que., was announced in the *Railway Age* of February 2, began his railroading career with the C. P. R. in 1908 at the Angus (Que.) shops. There he was assigned to special war work in the shell plant during World War I. Rising to the position of chief draftsman and assistant engineer by the time of World War II, he was again transferred to the munitions department, becoming supervisor of many of the contracts in the C. P. R.'s munitions manufacturing program.

Roy A. Smith

Peter Kass, superintendent of the car department of the Chicago, Rock Island & Pacific, with headquarters at Chicago, has retired after 52 years of railroad service.

A. L. Wright, assistant superintendent of equipment of the New York Central, has been appointed superintendent of equipment with headquarters as before at Cleve-

News Department continued on next left-hand page

from **Ewing Galloway**

LEADERSHIP

Elesco equipments were designed and developed to meet the needs of our railroads and have been progressively improved from fundamentally correct engineering principles. We have in no way deviated from known successful practices in engineering, or manufacturing.

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land, Ohio. **S. D. Foster,** superintendent of shops at Collinwood, Ohio, has been appointed assistant superintendent of equipment at Cleveland, succeeding Mr. Wright.

William Moore, whose retirement as superintendent of motive power of the Erie at Cleveland, Ohio, was announced in the February 2 issue of *Railway Age,* was born at Hornell, N. Y., and attended Park Insti-

William Moore

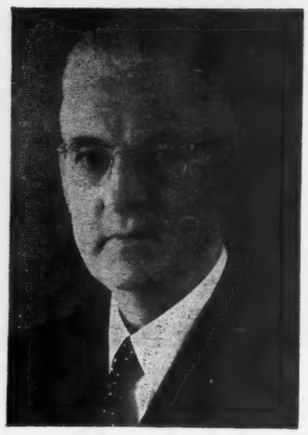
tute, Pa. In 1906 he was a foreman for the Erie at Meadville, Pa., becoming a roundhouse foreman at Carbondale, Pa., in 1909, then general foreman at Marion, Ohio, in 1915. He was advanced to master mechanic at Kent, Ohio, in 1918, transferring to Susquehanna, Pa., in 1921, and to Buffalo, N. Y., in 1938. In 1941 Mr. Moore was promoted to assistant to the superintendent of motive power with headquarters at Cleveland. He became superintendent of motive power there on October 1, 1943.

F. A. Benger, whose appointment as chief mechanical engineer of the Canadian Pacific at Montreal, Que., was announced in the February 2 issue of *Railway Age,* began his railway career after being graduated from Queens University, starting as

F. A. Benger

a special apprentice at the Canadian Pacific's Angus (Que.) shops in 1911. He was loaned to the Dominion government for special duties in the Dominion Arsenal at Quebec City, Que., during World War I. After returning to the C. P. R., he rose, by 1942, to the position of acting chief mechanical engineer. In the summer of 1944, he was responsible for designing and building engines 1200 and 1201, the first locomotives built by the Canadian Pacific since 1931. Mr. Benger's "1200" class engines will be models for part of the C. P. R.'s post-war replacement program.

John Roberts, whose retirement as managing director of National Railways Munitions, Ltd. (operated by the Canadian National at Montreal, Que.), was announced in the February 9 issue of *Railway Age,* was born in Kilmarnock, Scotland, on November 14, 1881. He became an apprentice in 1897 and a marine engineer in 1902, entering railroad service in 1903 as a machinist on the Grand Trunk (now the C. N. R.) at Stratford, Ont. Progressing through various sections of the shops, he became foreman in 1915, general foreman in 1920, and superintendent motive power in 1921. Mr. Roberts went to Montreal as general supervisor of shop methods in 1925, advancing to general superintendent, motive power and car equipment, for the Central region, with headquarters in Toronto, Ont., in 1932. The following year he was promoted to



John Roberts

chief of motive power and car equipment for the system at Montreal. He worked in conjunction with the National Railway Munitions, Ltd., from its beginning after war came, having devoted all his time to it since 1943, when he became managing director.

Fred H. Einwaechter, whose appointment as chief engineer of motive power and equipment, of the Baltimore and Ohio at Baltimore, Md., was announced in the January 12 issue of *Railway Age,* was inadvertently referred to at that time and in the February 2 issue as **Frank H. Einwaechter.**

William A. Carlson, whose appointment as superintendent of motive power of the Erie with headquarters at Cleveland, Ohio, was announced in the February 2 issue of *Railway Age,* was born at Chicago on April 27, 1890. He entered railway service in 1906 as a machinist's helper for the New York, Chicago & St. Louis (Nickel Plate), at Chicago, subsequently becoming a machinist at Fort Wayne, Ind. He joined the Chicago & Alton (now the Alton) in 1913, as a machinist at Chicago, and went with the Chicago, Rock Island & Pacific there one year later, in the same capacity. In 1915 Mr. Carlson returned to the Nickel Plate as machinist and later served as roundhouse foreman and general foreman at Fort Wayne. In 1928 he became general master mechanic of the Erie at

William A. Carlson

Hornell, N. Y., and in 1921 was advanced to Western district master mechanic at Meadville, Pa. He was promoted to assistant superintendent of motive power at Cleveland in 1943, maintaining this post until his advancement on January 17.

George Crowder, superintendent of motive power of the Georgia & Florida, whose death was reported in the February 2 issue of *Railway Age,* was born in Meriweather County, Ga., and entered railway service as a machinist's apprentice for the Baldwin Locomotive Works in 1904, being appointed track foreman in the erecting shop at the conclusion of his apprenticeship. In 1904 he went with the El Paso & Northeastern (now part of the Southern Pacific) as a machinist at Alamo Gordo, N. M.

George Crowder

He returned to Georgia in 1905 as machinist in the Waldo shops of the Seaboard Air Line, then joined the Atlantic Coast Line in 1907 as roundhouse foreman at Jacksonville, Fla. After a short period of

News Department continued on next left-hand page

In Use on the

L&N

From St. Louis and Cincinnati to New Orleans, engines like this were hauling freights on the L & N around 1910.

WELDING the Southern Mid-West into a compact economy, the 4700-mile Louisville and Nashville has for over 95 years been "The Old Reliable" to a vast productive area. Famous for consistently efficient service, the L & N keeps its motive power up to the mark in order to render that service, and in this it has used high quality HUNT-SPILLER GUN IRON for over 36 years.

Today's locomotives are changed from those of yesterday; that makes noteworthy the fact that HSGI vital parts have met the L & N's requirements for more than a generation. Equal satisfaction is yours when you specify the HSGI parts listed below.

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WEAR RESISTING PARTS

HUNT SPILLER GUN IRON
HSGI
AIR FURNACE PROCESS

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service in the same year for the Southern at Augusta, Ga., Mr. Crowder was appointed general foreman of the Douglas, Augusta & Gulf (now the Georgia & Florida) at Douglas, Ga. He was advanced to superintendent of motive power of the Georgia & Florida on February 1, 1929.

George T. Johnson, assistant electrical engineer of the New York, New Haven & Hartford at New Haven, Conn., retired on February 1, after more than 41 years of service to the New Haven.

SPECIAL

William E. Murphy has been appointed chief of examinations for the New York, New Haven & Hartford at New Haven, Conn. **Arthur J. Powers** has been named supervisor of block operations there.

William H. Roberts, recently released from the armed forces, and formerly chief clerk to the chief operating officer of Chicago & North Western, has been appointed superintendent of safety, with headquarters at Chicago, replacing **E. L. Henry,** whose retirement was announced in the February 9 issue of *Railway Age.*

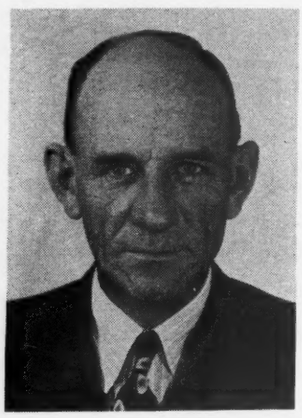
Joseph R. Thexton, whose appointment as superintendent of safety of the Delaware, Lackawanna & Western at Hoboken, N. J., was announced in the *Railway Age* of February 9, entered the service of the D. L. & W. in 1906 as a messenger at Buffalo, N. Y., becoming a file and time clerk in 1907. In 1910 he went to the engineering department as a rodman at Buffalo, then, in 1914, became baggage agent at Elmira, N. Y., later transferring to Buffalo. He was appointed efficiency clerk at East Buffalo, N. Y., in 1916, advancing

Joseph R. Thexton

to yardmaster there in 1920. Mr. Thexton was sent to Syracuse, N. Y., as general yardmaster in 1926, where he remained until 1935, when he was appointed special representative on the staff of the general superintendent at Scranton, Pa. He returned to East Buffalo as terminal trainmaster in 1940, transferring to Hoboken in 1941. He was advanced to superintendent there in 1943, maintaining that position until his recent appointment.

Gordon T. Frayne, formerly cruise director for the Canadian Pacific, who has served the British Ministry of War Transport for the past 6 war years, has returned to the C. P. R. as assistant steamship general agent at Montreal, Que., succeeding **John B. Mackay,** who has retired after 27 years' service.

D. R. Prince, whose promotion to superintendent of safety and fuel supervisor of the Southern Pacific, with headquarters at Houston, Tex., was reported in the *Railway Age* of January 12, was born at Poplar Bluff, Mo., on September 29, 1900, entered railroad service on November 12, 1916, as a roundhouse laborer on the Southern Pacific Lines at Yoakum, Tex., and served as machinist helper and machinist until February 16, 1929, when he became roundhouse foreman at Alice,



D. R. Prince

Tex. From June 18, 1929, to November 23, 1930, he was a machinist at various points on the lines in Texas, and was promoted on the latter date to mechanical foreman at Corpus Christi, Tex. On October 19, 1936, he became roundhouse foreman at Denison, Tex., where he remained until July 16, 1938, when he was appointed assistant day roundhouse foreman at Ennis, Tex. Mr. Prince became night roundhouse foreman at Ennis on August 16, 1941, and a year later was appointed terminal trainmaster at Del Rio, Tex. From September 23, 1944, to November 1, 1945, he served as trainmaster at San Antonio, Tex., returned to Del Rio for a short period, and on November 15, 1945, became roundhouse foreman at Sanderson, Tex., the position he held at the time of his recent promotion.

J. H. Dunlap, superintendent of the Railway Express Agency at Cincinnati, Ohio, has been appointed superintendent of organization, with headquarters at Chicago, succeeding **C. W. Blacklidge,** who becomes superintendent of the Indiana division at Indianapolis, Ind., where he succeeds **W. C. Rutherford,** who has retired after 48 years of service. **R. R. Tulloch,** general agent at Minneapolis, Minn., has been promoted to superintendent of the Lake Superior division at Duluth, Minn., where he succeeds **C. D. Knab,** who has been transferred to Cincinnati to replace Mr. Dunlap.

Frank Cizek, superintendent of safety of the Delaware, Lackawanna & Western at Hoboken, N. J., whose retirement was announced in the February 9 issue of *Railway Age,* was born on April 2, 1875. He entered railroading in 1890 as a messenger for the Chicago, Rock Island & Pacific at Chicago, advancing, in 1894, to stenographer for the vice-president and general manager. He joined the Delaware, Lackawanna & Western in 1899 as secretary to president. He became assistant trainmaster for the D. L. & W. at Hoboken in 1901, and passenger trainmaster there in 1907. Mr. Cizek was advanced to superintendent, Bangor and Portland division, in 1908, with headquarters at Easton, Pa., and transferred to Syracuse and Utica division, headquarters at Binghamton, N. Y., in 1911. He was promoted to superintendent of safety in 1942.

W. Wackher, whose retirement as superintendent of safety of the Missouri-Kansas-Texas, with headquarters at Dallas, Tex., was reported in the *Railway Age* of February 9, was born at St. Louis, Mo., on November 1, 1872, entered railroad service in July, 1889, with the Alton, and served with that road until 1893, when he entered the service of the Missouri-Kansas-Texas. Mr. Wackher served successively as agent and operator, secretary to the trainmaster, train dispatcher, chief train dispatcher, trainmaster, assistant superintendent, superintendent, and rules examiner until May, 1937, when he was appointed superintendent of safety at Dallas, the position he held at the time of his retirement.

E. L. Henry, whose retirement as superintendent of safety of the Chicago & North Western, with headquarters at Chicago, was reported in the *Railway Age* of February 9, was born at Malcom, Iowa, on July 7, 1879, entered railroad service on September 26, 1899, as a freight brakeman on the North Western at Belle Plaine, Iowa, and served in various minor positions until January 10, 1917, when he became trainmaster at South Pekin, Ill., in which capacity he served later at Ames, Iowa, and Wall Lake. On January 1, 1925, he was promoted to assistant superintendent of the Iowa division at Clinton, Iowa, where he remained until June 1, 1927, when he was promoted to division superintendent at Boone, Iowa. From December 16, 1934, to August 5, 1936, Mr. Henry was assistant superintendent of the Madison division at Winona, Minn., being appointed on the latter date to assistant to the vice-president and general manager at Chicago. On July 1, 1937, he was advanced to the position he held at the time of his retirement.

OBITUARY

Joseph W. Broome, secretary of the Western Maryland, whose death was reported in the February 9 issue of *Railway Age,* was born at Brooklyn, N. Y., on July 11, 1890. He entered railway service as a clerk for the Western Maryland in 1908. In 1912 he became chief clerk to the secretary and treasurer, returning to this position after overseas service in World War I. Mr. Broome was advanced to assistant secretary and assistant treasurer in 1921, then secretary and assistant treasurer in 1922, maintaining the post of secretary until his death.